## M I S S O U R I DEPARTMENT OF MENTAL HEALTH

## Annual Safety Report



Submitted to Governor Jeremiah W. (Jay) Nixon June 30, 2010

## JEREMIAH W. (JAY) NIXON GOVERNOR KEITH SCHAFER, Ed.D. DIRECTOR



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June 30, 2010

Governor Jeremiah W. (Jay) Nixon Lieutenant Governor Peter Kinder Missouri Mental Health Commission

Re: 2010 Annual Report on Implementation of Safety Recommendations

Dear Governor Nixon, Lieutenant Governor Kinder and Commissioners:

The Department of Mental Health is pleased to present the 2010 Annual Safety Report. The 2009 report documented completion of the safety recommendations made by the 2006 Mental Health Task Force. This year's report adopts a new format and provides a summary of critical safety measures tracked by DMH staff and routinely monitored by the Mental Health Commission. By institutionalizing and reviewing performance indicators, DMH has embraced its ongoing commitment to transparency and accountability for consumer safety.

Sincerely,

Lynn Carter, MSW, LCSW

Sym Carter

**Deputy Director** 

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#### Introduction

**3** In 2006, the Mental Health Task Force convened a series of public forums and developed recommendations to address public concerns about the safety of Department of Mental Health services.

## **Department of Mental Health Performance Measures**

**5** This section of the report documents Department of Mental Health performance measures that are reviewed by the Mental Health Commission. These charts provide a "snapshot" of safety data as a tool for transparency and accountability.

#### **Discussion and Conclusions**

**98** Observations related to key safety-related indicators and trends are highlighted.

#### **Executive Summary**

Protecting the well being of Department of Mental Health (DMH) consumers is a job that is never done. It requires ongoing attention and vigilance through institutionalized quality management processes that monitor safety indicators, identify problems early and institute individual and systemic corrective actions. With the completion of the Mental Health Task Force (MHTF) safety agenda in 2009, DMH instituted processes to institutionalize systematic review and consideration of safety related data to inform decision making for DMH facilities and provider monitoring.

In recent years, the Mental Health Commission has undertaken quarterly review of performance indicator data, supplementing the careful and disciplined analysis that takes place at the local level. Facility and treatment program staff use the data for individual and programmatic quality improvement.

The Commission's performance review process has paved the way for a new type of safety report. After a brief background review, the 2010 edition of the annual report presents a series of more than 90 data tables related to DMH consumer demographics as well staffing, adverse events such as injuries, investigations of abuse and neglect, and death rate information. These tables provide a snapshot of safety performance as reflected in a number of factors such as consumer demographics and acuity indicators, staffing levels and demands, census, injuries to consumers and staff, and abuse/ neglect reporting, investigation and findings. Charts include up to two (2) years of data to assist in identifying patterns and trends. The following observations are notable:

- Declines in CPS inpatient youth injuries correlate with reduced use of restraint and seclusion.
- Overtime continues to present staffing challenges in CPS and DD facilities.
- Bed closures have increased in acute facilities due to staffing and budget shortfalls.
- Long term facilities continue to operate above capacity.
- Staff injury rates have decreased in the three most recent quarters.
- High proportions of habilitation center clients require formal behavior support programs.

Although the data is informative and provides transparency and accountability for consumer safety, its greatest value is its use as a systemic quality improvement tool to make DMH services and systems safer for DMH consumers. Examples of key activities DMH has undertaken in the last year to improve safety include, but are not limited to:

Initiatives for safe use of restraint and seclusion, with many CPS and DD facilities continuing their efforts to reduce its use or eliminate it entirely.

- · Risk prediction modeling to identify consumers at risk for higher rates of restraint and seclusion to implement prevention and early intervention strategies.
- · Concerted efforts to address staff injury rates at Fulton State Hospital due to high rates of staff injury and workers compensation claims.
- Diligent efforts to reduce census at facilities operating above capacity.

The routine review of performance data and trends provides a tool to evaluate the success of these and future quality improvement efforts.

#### Introduction

#### **Purpose of Report**

As the final recommendation in its November 2006 report, the Mental Health Task Force (MHTF) mandated the creation of an annual safety report to be prepared by the Missouri Department of Mental Health (DMH). The annual report, due each year on June 30, is to be submitted to:

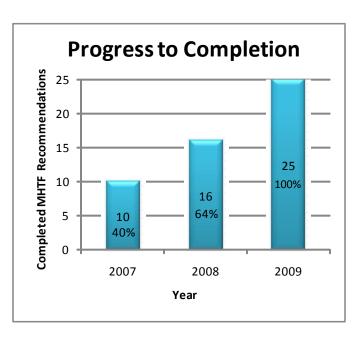
- The Governor:
- The Lt. Governor; and
- The Mental Health Commission (MHC).

In past years, the report summarized DMH progress toward implementing twenty-five (25) recommendations. With the completion of the recommendations in 2009, this and future reports will provide a compilation of key performance measures for DMH that are tracked by the Mental Health Commission and include safety as a core concern.

#### **Background Information**

In 2006, public concern emerged about safety for DMH consumers. A Governor-appointed task force was convened as the Mental Health Task Force and was given the charge to review best practices and make recommendations for changes to the mental health system that would result in improved safety for DMH consumers. After months of public dialogue and careful deliberation, the MHTF issued its report in November 2006. The full report is available for public review at <a href="http://www.dmh.mo.gov/mmhtaskforce/index.htm">http://www.dmh.mo.gov/mmhtaskforce/index.htm</a>.

As recommended by the MHTF, the first Annual DMH Safety report was submitted in 2007 followed by the second and third reports in 2008 and 2009. These reports are posted for public review on the DMH website at http://www.dmh.mo.gov/spectopics/ DMHSafetyReports.htm. The 2010 report is dramatically different in format with the completion of the MHTF recommendations in 2009 as documented in the chart. The report will now provide an annual status update of consumer safety as represented by a summary of DMH performance measures that include safety-related indicators.



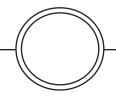
#### **Performance Measures**

Protecting the well being of Department of Mental Health consumers is a job that is never done. Protection from harm requires ongoing attention and vigilance through institutionalized quality management processes that monitor safety indicators, identify problems early and institute immediate correctiive actions.

The following report represents the quality improvement systems in place that collect, compile and analyze data for presentation to Division and Department leadership. The Mental Health Commission reviews the data on a quarterly basis, often sharing direction and guidance related to their observations and concerns.

Charts contained in the report represent the status for each measure as well as data for the previous one (1) to two (2) years, providing the opportunity to identify changes and trands over time.

## DMH Performance Measures



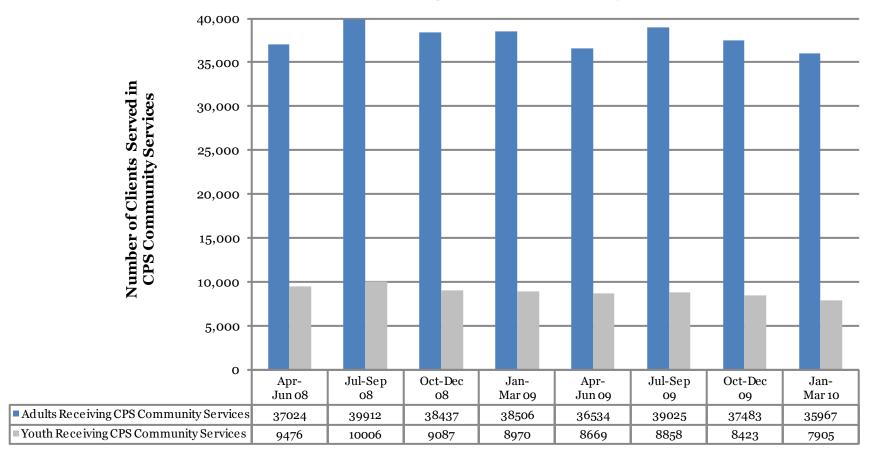
## **May 2010**



# Division of Comprehensive Psychiatric Services

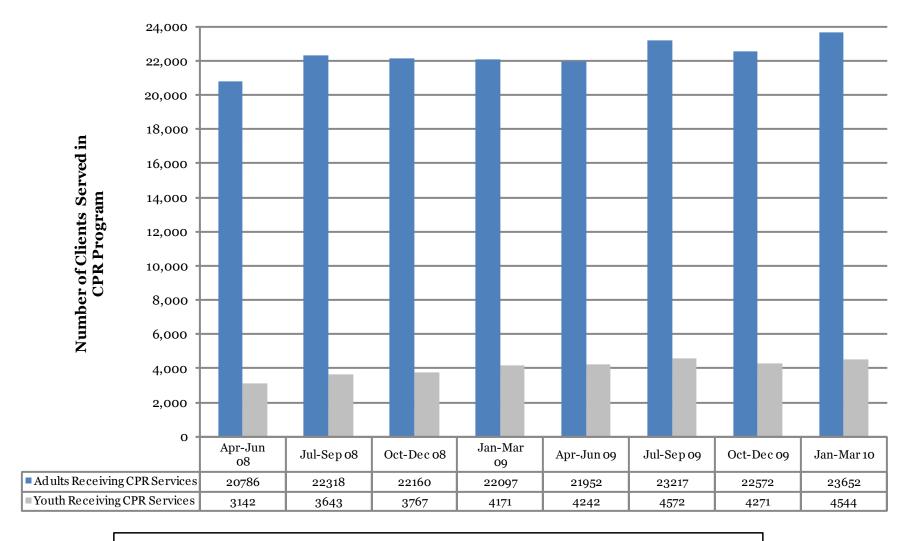


#### **Clients Receiving CPS Community Services**



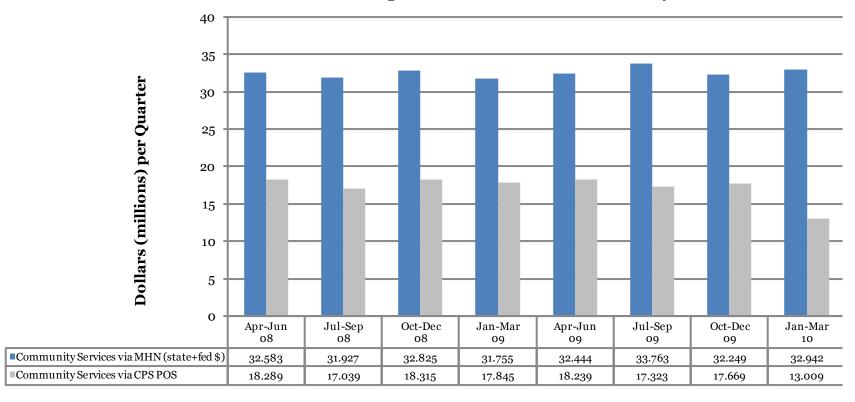
SIGNIFICANCE: The long term trend (over many years) has been one of slowly increasing numbers of CPS community clients. It is too soon to yet call it a new trend for adults, but initial results for this year suggest a possible decline. A downward trend for numbers of CPS youth is already clear.

#### ${\bf Clients\,in\,the\,Community\,Psychiatric\,Rehabilitation\,Program}$



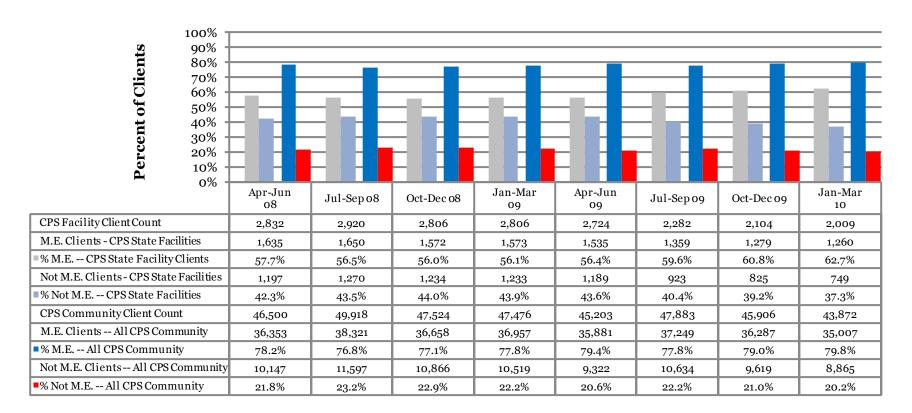
SIGNIFICANCE: Most of the relatively recent decline in numbers of youth served appears to have been in programs other than CPR. In fact, there appears to be a slight trend into the CPR program even as overall client numbers decline.

#### **Funding Sources for CPS Community Clients**



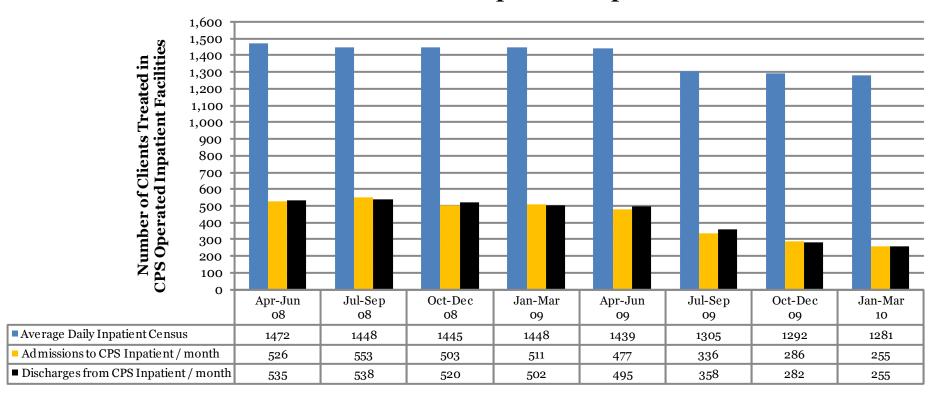
SIGNIFICANCE: POS services have taken the larger part of budget cuts this year, so while 2 quarters of declining POS spending is a very short trend it is a trend that is expected to continue. That said, the most recent quarter numbers are subject to upward revision as late service claims come in.

#### **Medicaid Eligibility of CPS Clients**



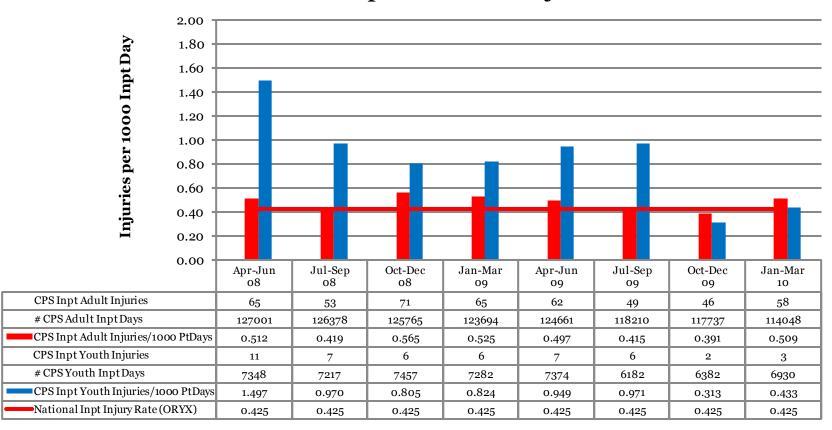
SIGNIFICANCE: There has been a very gradual increase in the proportion of CPS clients with Medicaid Eligibility over the past two years.

#### **Clients in CPS Operated Inpatient Facilities**



SIGNIFICANCE: The reduced admissions/discharges and daily census numbers for CPS operated facilities in the first 2 quarters of FY10 are a direct result of P.A.C.T. (Psychiatric Acute Care Transformation) activities which shifted state operated acute psychiatric beds in Kansas City and Columbia to the private sector.

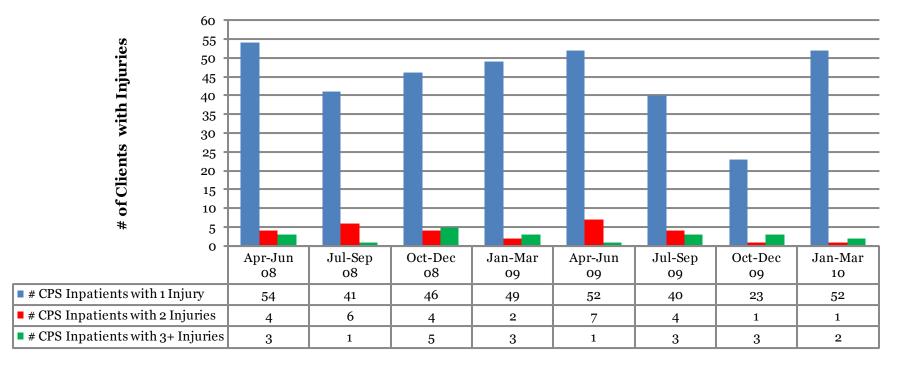
#### **CPS Inpatient Client Injuries**



NOTE: "Injuries" for CPS Inpatient clients include those requiring medical intervention or more. Use of patient days is a standard way to adjust for facility size on inpatient metrics for measures that apply to both acute and long term facilities – use of simple client counts would result in disproportionately high client counts in acute facilities due to relatively rapid turnover and short length of stays. Also, using this definition allows CPS to benchmark to the NRI/ORYX rate of 0.425 injuries per 1000 patient days. (Calendar 2008 average)

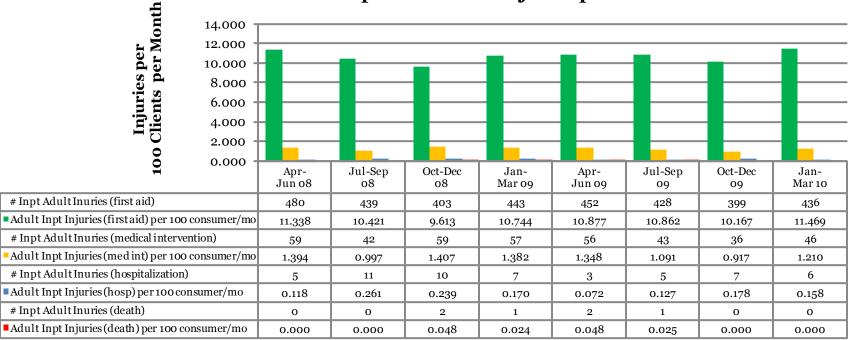
SIGNIFICANCE: The recent decline in inpatient youth injuries at least correlates with reduced restraint and seclusion.

#### **CPS Inpatient Injuries -- Clients with 1,2,3 or more Injuries**



NOTE: "Injuries" on this chart includes those requiring at least medical intervention. This definition pairs with With the first (ORYX definition chart) but not the above "community definition chart. Also note that the Hab Centers have a different reporting standard of including first aid injuries -- thus a much broader class of event. This graph identifies clients with multiple injuries (by ORYX definition) during each quarter. SIGNIFICANCE: For the most part, these more serious categories of injury involve different clients rather than the same clients injured multiple times within the quarter.

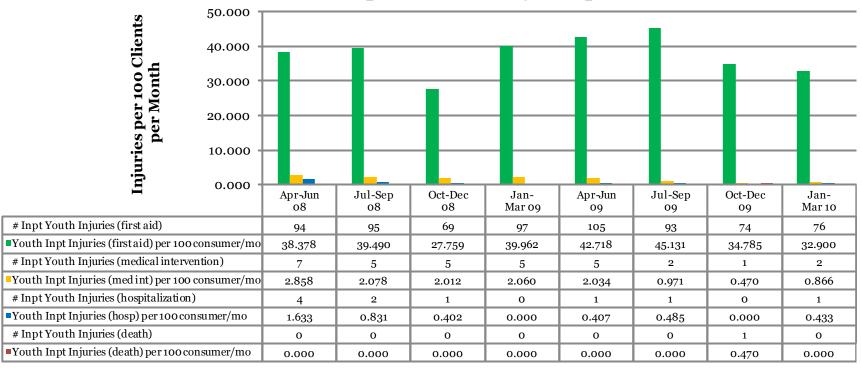
#### **CPS Adult Inpatient Client Injuries per 100 Clients**



NOTE: Inpatient injury reports include those requiring only first aid, which community reports do not, so this graph separates by severity of injury category. Comparisons to community rates can only be made based on the 2 most severe injury categories.

SIGNIFICANCE: The overwhelming majority of adult inpatient injuries are first aid only severity. However, serious injury rates are higher for CPS inpatient clients than in the community.

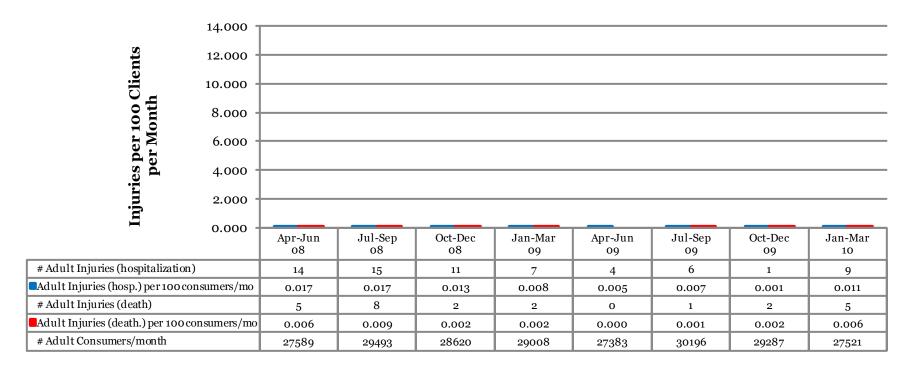
#### CPS Youth Inpatient Client Injuries per 100 Clients



NOTE: Inpatient injury reports include those requiring only first aid, which community reports do not, so this graph separates by severity of injury category. Comparisons to community rates should only be made based on the 2 most severe injury categories.

SIGNIFICANCE: There is a significantly higher rate of youth inpatient injuries than adult. This is due to the very high numbers of first aid only injuries reported for youth.

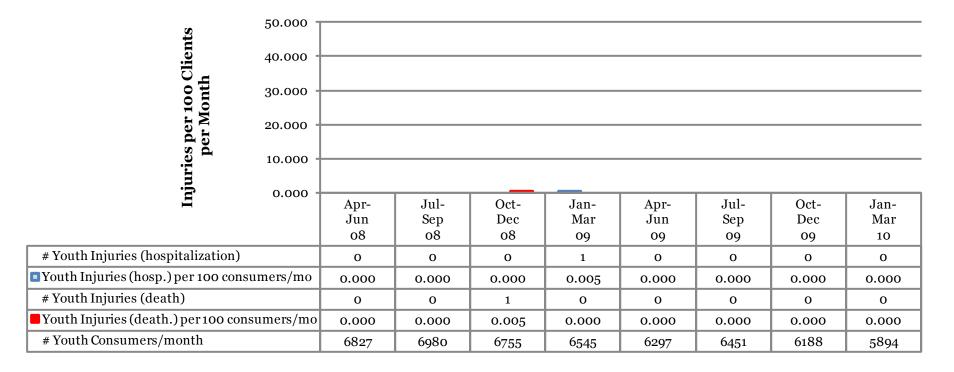
#### **CPS Adult Community Client Injuries**



NOTE: "Injuries" for CPS community clients include those requiring hospitalization but not those requiring first aid or medical care less than hospitalization.

SIGNIFICANCE: There is a very low rate of serious injury to clients receiving CPS community services.

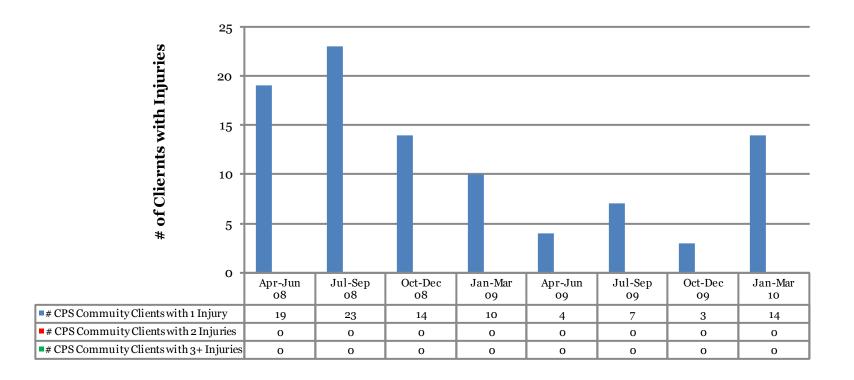
#### **CPS Youth Community Client Injuries**



NOTE: "Injuries" for CPS community clients include those requiring hospitalization but not those requiring first aid or medical care less than hospitalization.

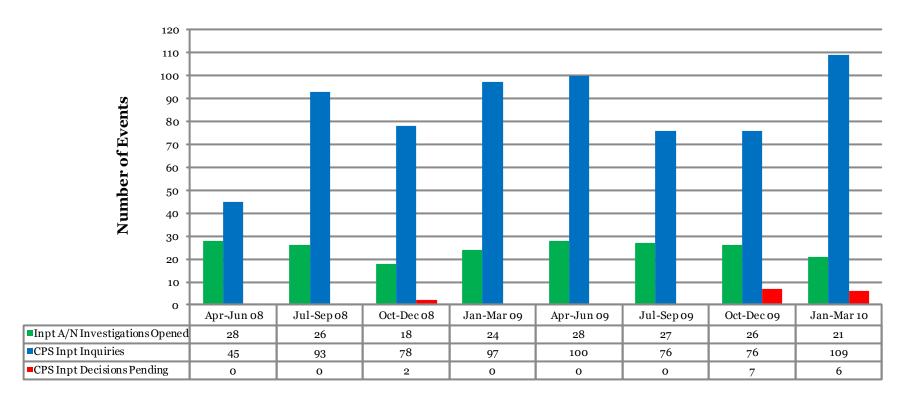
SIGNIFICANCE: There is a very low rate of serious injury to clients receiving CPS community services, lowest of all for youth in CPS community services.

#### **CPS Community Injuries -- Clients with 1, 2 or more Injuries**



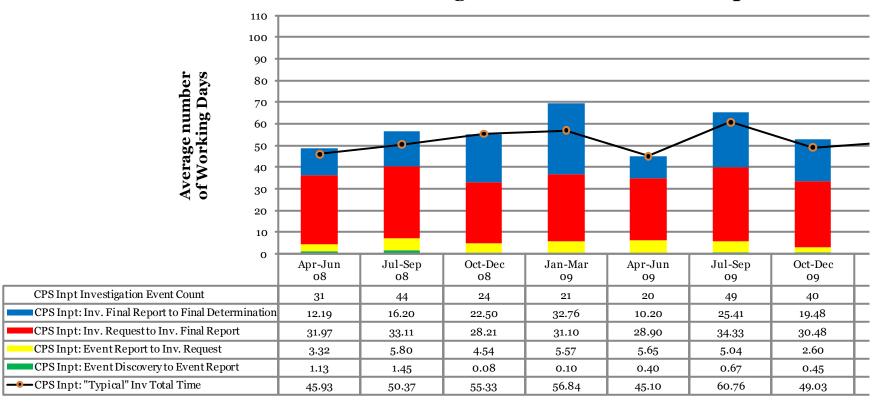
NOTE: This includes injuries requiring medical intervention or hospitalization and would identify clients with multiple injuries during each quarter, although 100% of the clients with such injuries had only 1. (Also note that 26-28,000 clients per quarter had no injuries at all.)

#### **CPS Inpatient Inquiries into Potential Abuse/Neglect Allegations**



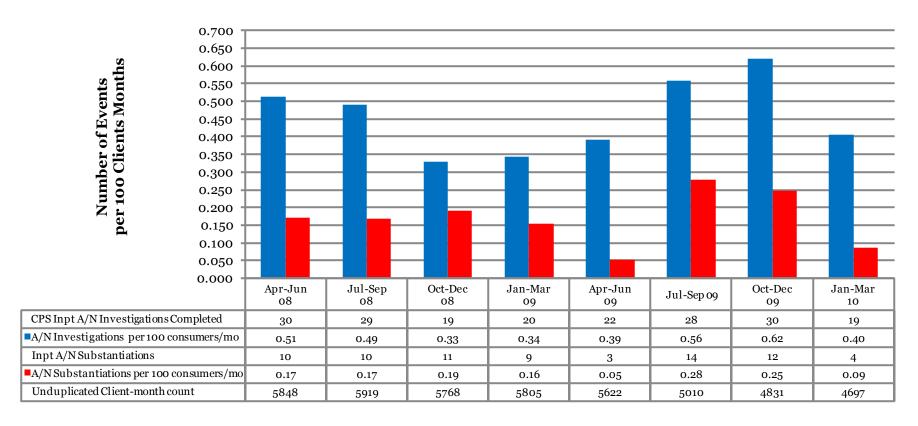
NOTE: If an allegation is made but has not yet been assigned an investigation or inquiry it is counted as "pending" above. If an event initial had an inquiry but then an A/N investigation, it is counted only as investigation to ensure an unduplicated count of cases under review. Also note that a "decision" to open an investigation is only the start of the investigation process -- when a final judgment is made regarding an allegation that is called a "determination" and the investigation is completed.

#### **Duration of Investigation Process for CPS Inpatient**



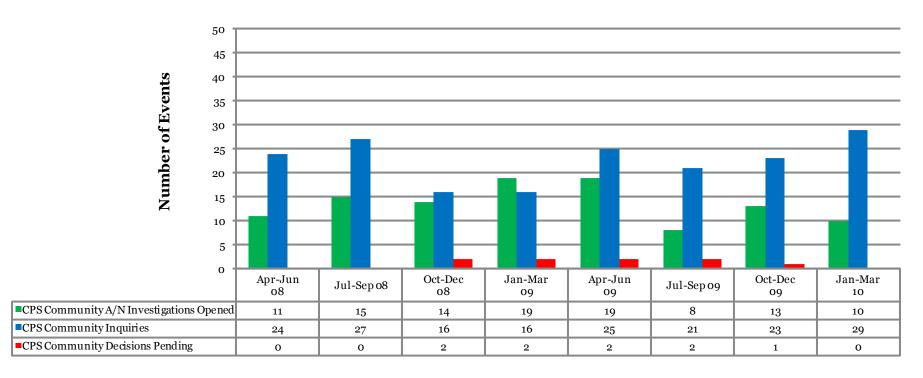
NOTE: Timelines are divided into 4 distinct stages of the investigation -- the bars show the average duration (in working days) for all final determinations made in each quarter, whereas the line superimposes the overall average duration of 90% of the cases. The 90% is used in order to show a more "typical" timeline excluding the outlier cases.

#### **CPS Inpatient Abuse / Neglect Investigations**



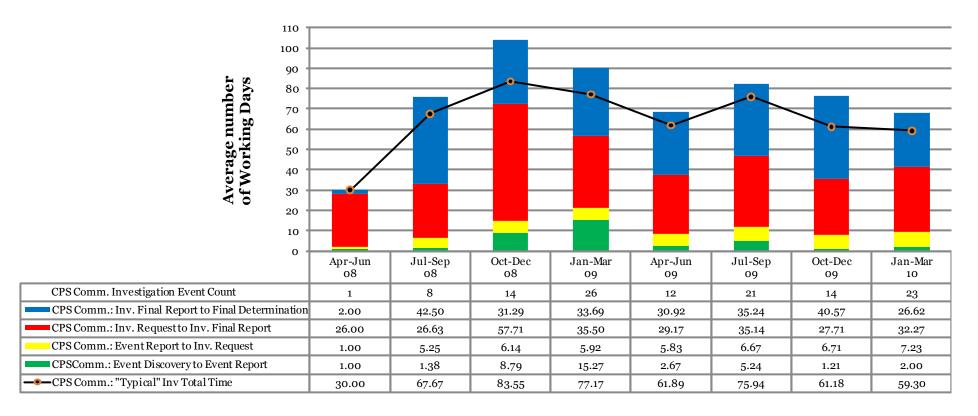
NOTE: Investigations and Substantiations are a count of the number of events, not the number of alleged perpetrators or victims. Also, both counts reflect cases finalized in the quarter reported. Often, such measures are taken as a proportion of 1000 pt-days for inpatient events, but here we are using per 100 unique consumers per month in order to use the same measure as community rate

## **CPS Community Inquiries into Potential Abuse/Neglect Allegations**



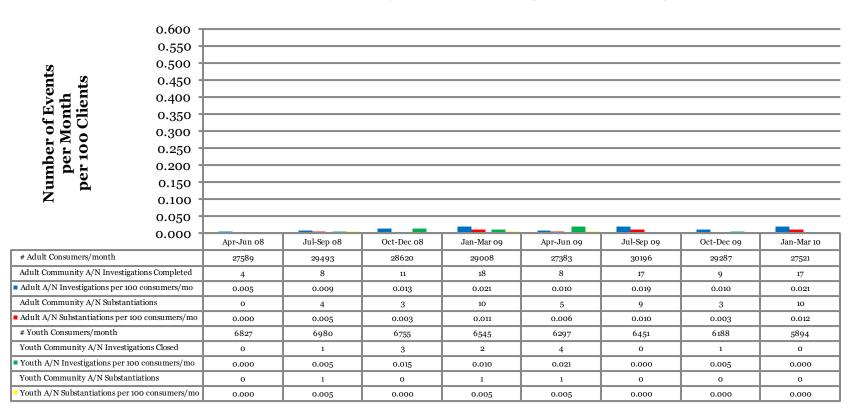
NOTE: This shows both SCL and CMHC cases. If an allegation is made but has not yet been assigned an investigation or inquiry it is counted as "pending" above. If an event initial had an inquiry but then an A/N investigation, it is counted only as investigation to ensure an unduplicated count of cases. Also note that a "decision" to open an investigation is only the start of the investigation process -- when a final judgment is made regarding an allegation that is called a "determination" and the investigation is completed.

#### **Duration of Investigation Process for CPS Community**



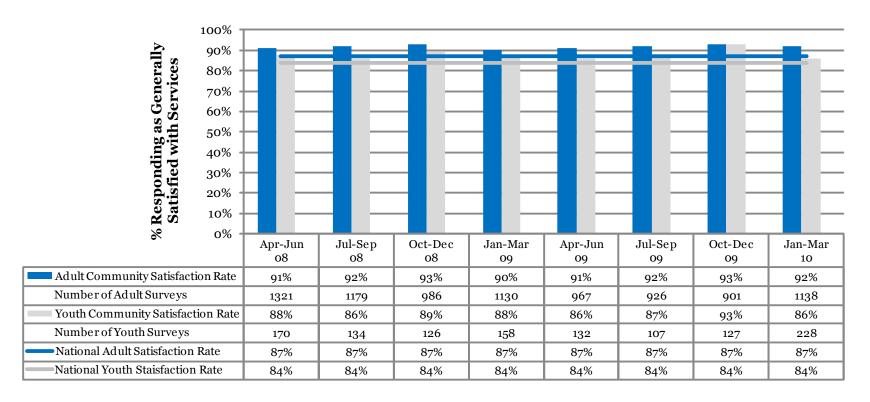
NOTE: Timelines are divided into 4 distinct stages of the investigation -- the bars show the average duration (in working days) for all final determinations made in each quarter, whereas the line superimposes the overall average duration of 90% of the cases. The 90% is used in order to show a more "typical" timeline excluding the outlier cases. This shows both SCL and CMHC cases.

#### **CPS Community Abuse / Neglect Investigations**



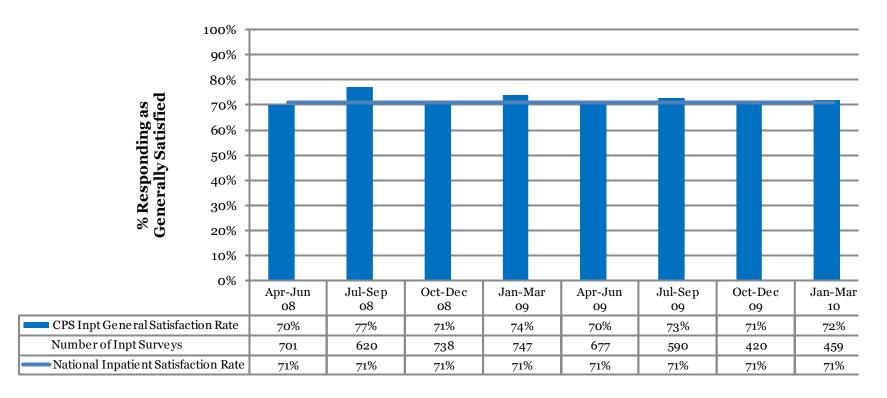
NOTE: Investigations and Substantiations are a count of the number of events, not the number of alleged perpetrators or victims. Also, both counts reflect cases finalized in the quarter reported. The above statistics do not include substantiations with only Neglect 2 ar Verbal Abuse findings, but do include both SCL and CMHC cases.

#### **CPS Community Client General Satisfaction with Services**



NOTE: Taken from the CPS Adult and Youth Satisfaction Surveys using national standard MHSIP questions. SIGNIFICANCE: Both adult clients and the families of youth in CPS services report high rates of satisfaction with the services they receive in the community. These rates compare favorably to other satisfaction rates in other states as reported on identical and nationally standardized questionnaires.

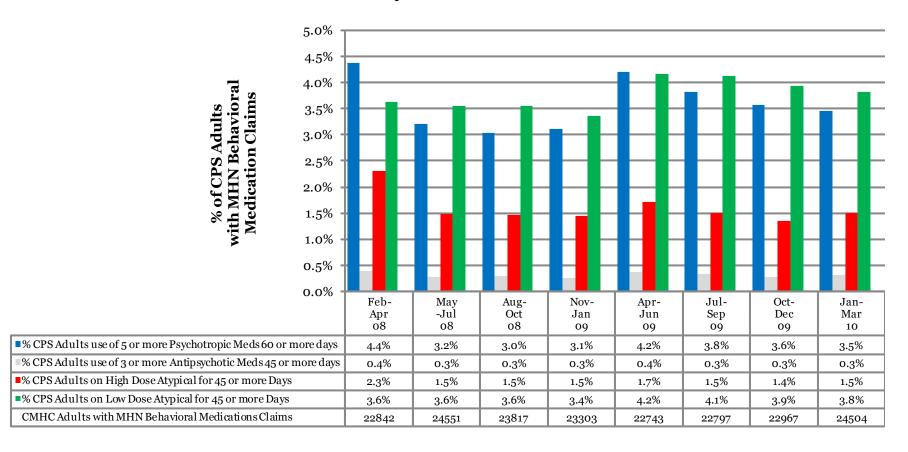
#### **CPS Inpatient Satisfaction**



NOTE: Taken from the CPS Inpatient MHSIP survey -- average of all 5 domains.

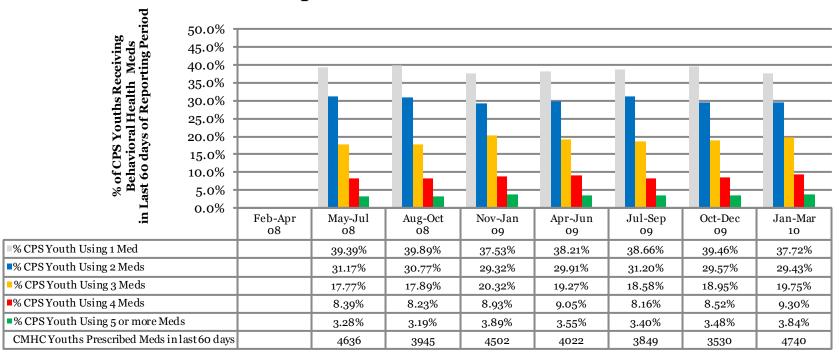
SIGNIFICANCE: No overall trend but the general inpatient satisfaction rate compares well to similar client populations in other states using the same standardized survey instrument.

#### **CPS Community Adult Medication Screens**



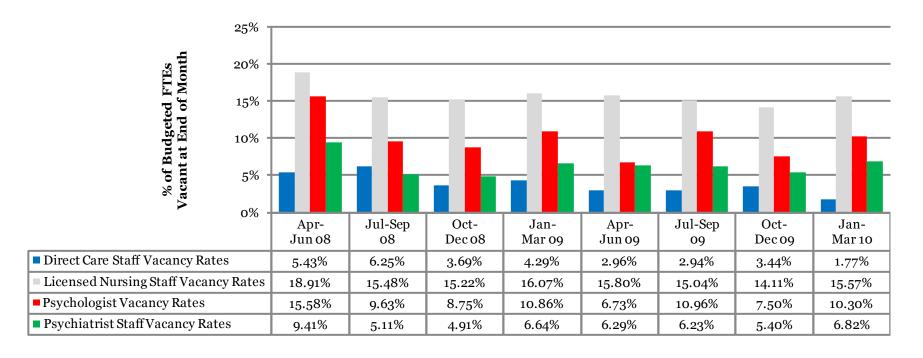
NOTE: "Quarters" do not match other charts - using time periods set by most recent consecutive "Missouri CMHC Behavioral Pharmacy Management Program" reports.

## **CPS Community Youth Prescribed Multiple Behavioral Health Medications**



SIGNIFICANCE: Missouri CPS has received national recognition for the proactive management of the psychotopic medication prescribing profiles of Missouri physicians. The prescribing of multiple behavioral health medications for youth is sometimes clinically indicated but always an appropriate topic for increased monitoring and thus a key element of our oversight and feedback to prescribing clinicians.

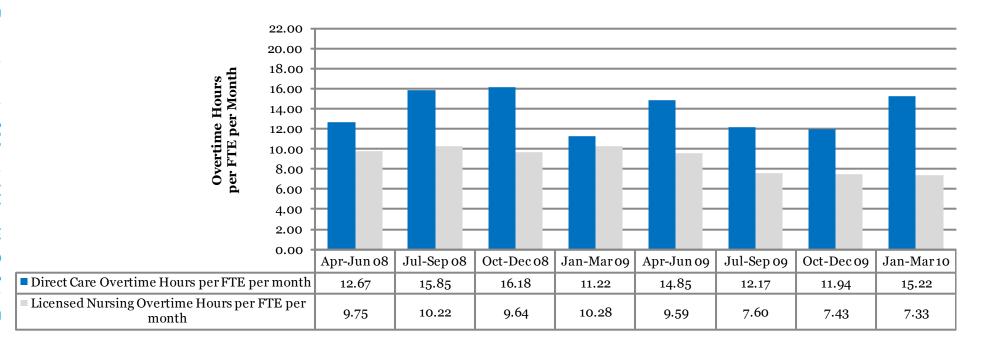
#### **CPS Operated Facility Staff Vacancy Rates**



NOTE: "Direct Care" Staff includes: PA 1 and 2; CATs; SA 1 and 2; Security Attendants; Child Psych Sup. LPN/RN, Psychologist, Psychiatrists rates include all positions regardless of supervisory assignment. Budgeted FTEs FY10 are: Direct Care 1661; Lic. Nurse 522; Psychology 76; Psychiatry 71.

SIGNIFICANCE: Difficult economic conditions have probably helped improve direct care vacancy rates seen in recent quarters, but less so for licensed and professional staff. The combination of improving general economic conditions and possible layoffs at state operated facilities have potentially complex effects on such statistics in the near future, making projections from these numbers very difficult.

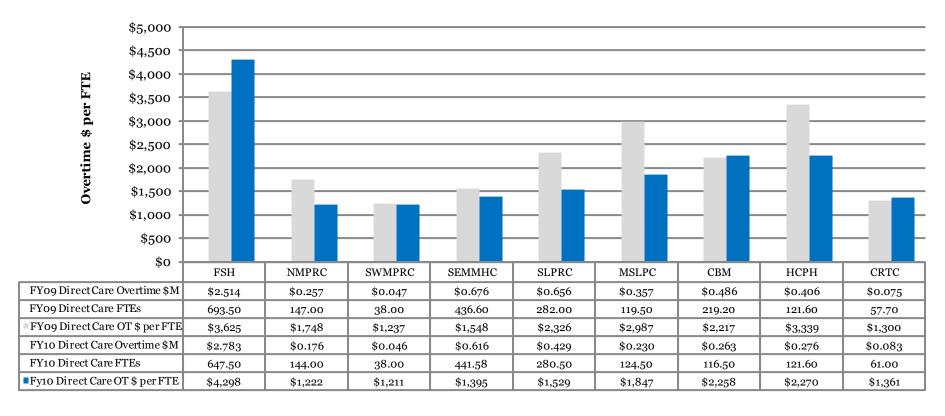
## **CPS Operated Facility Overtime Hours per FTE per Month**



NOTE: "Direct Care" Staff includes: PA 1 and 2; CATs; SA 1 and 2; Security Attendants; Child Psych Sup. All overtime hours are included whether "mandatory" or "voluntary".

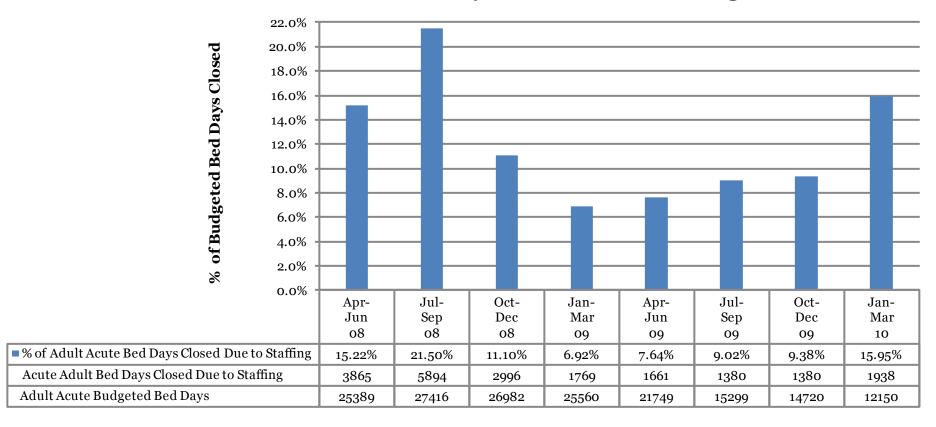
SIGNIFICANCE: Facility staffing levels, even without vacancies, are near minimums required for safety. Because of this, staffing vacancies translate into high levels of overtime.

#### CPS Operated Facility, FY10 Year to Date Overtime \$ per FTE versus FY09 to same date Overtime \$ per FTE



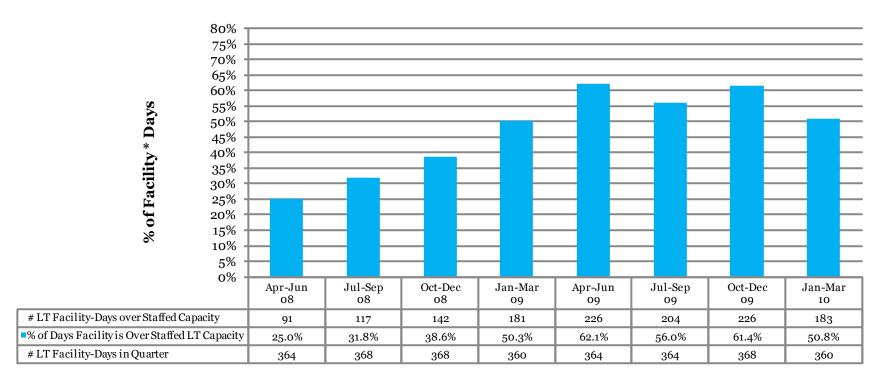
NOTE: FTEs are budgeted FTEs, and "direct care" includes all PAs, SAs, and all nursing staff.

# **CPS Adult Acute Bed Days Closed due to Staffing**



NOTE: This is a measure of reductions in bed capacity due to staffing and staffing related acuity concerns, compared to the bed days budgeted for when fully staffed. No youth acute beds closed due to staffing.

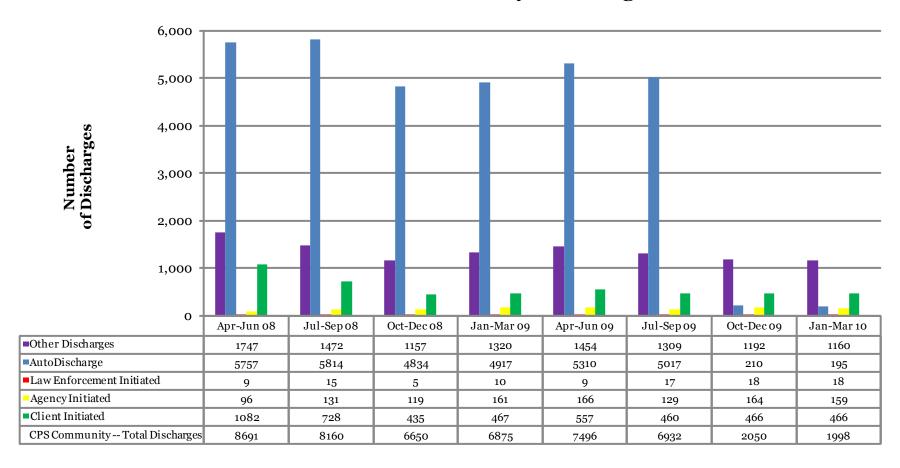
#### **CPS Long Term Inpatient % Days Over Staffed Capacity**



NOTE: Each long term facility is weighted the same in this measure -- the above % is a simple average of the four long term facilities individual rates for each quarter.

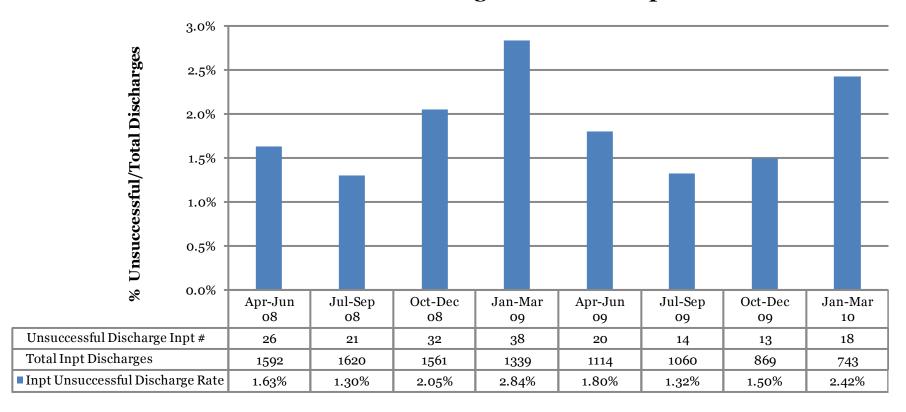
SIGNIFICANCE: Long term inpatient units are operating over staffed capacity more often than not.

#### **CPS Community Discharges**



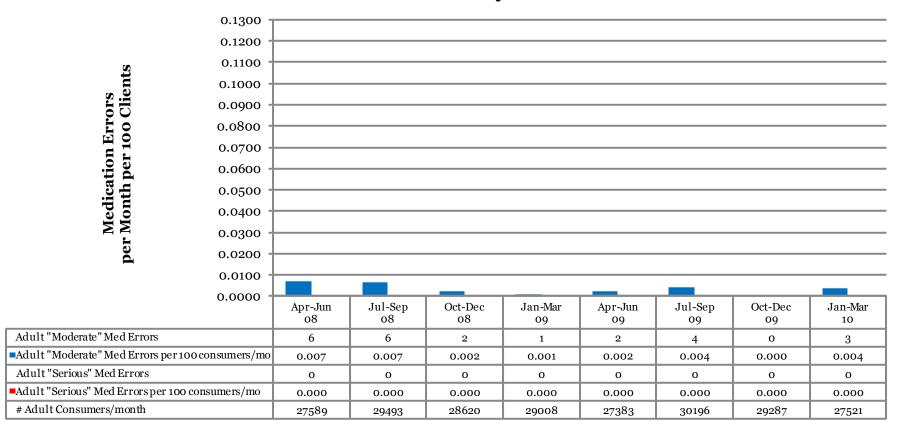
NOTE: Law enforcement initiated = incarcerated with or without satisfactory treatment progress; Agency initiated includes consumer would not comply plus treatment viewed as ineffective by therapist; Client initiated includes AMA, consumer dropped out, and treatment viewed as ineffective by consumer.; Autodischarge is system discharged due to inactivity for 6 months.

#### "Unsuccessful" Discharges from CPS Inpatient



NOTE: "Unsuccessful" discharges include Against Medical Advice, Discharged from Elopement, and Transfers to higher security facility.

#### **CPS Adult Community Medication Errors**



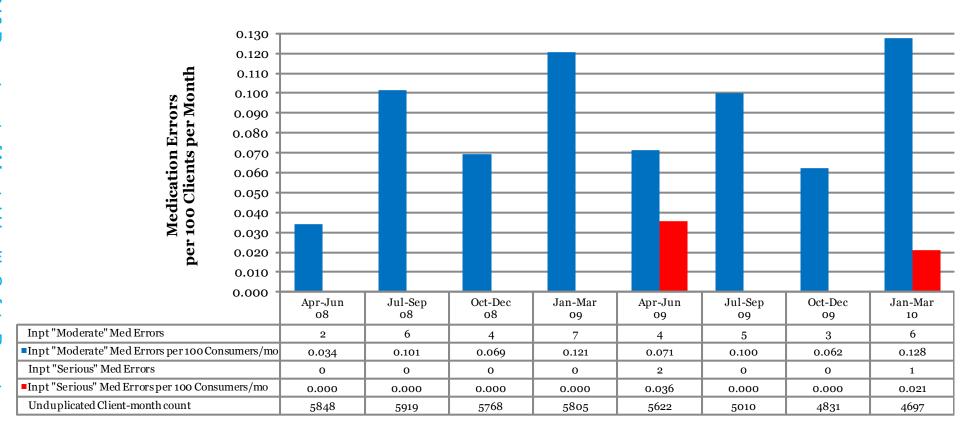
NOTE: "Moderate" medication errors are those resulting in the need for treatment and/or interventions beyond monitoring and observation. "Serious" medication errors are those with life threatening and/or permanent adverse consequences.

#### **CPS Youth Community Medication Errors**



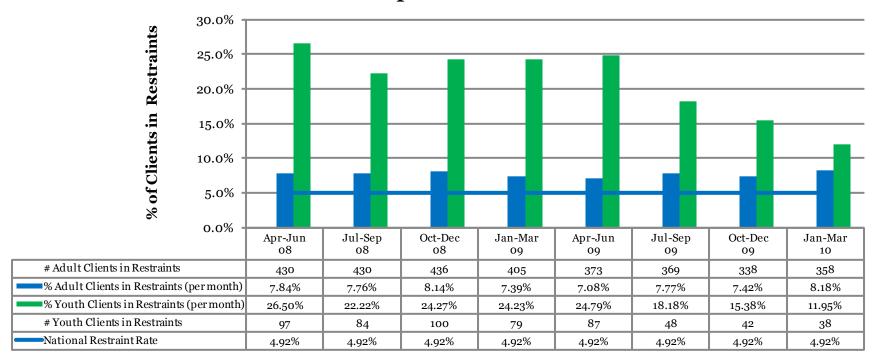
NOTE: "Moderate" medication errors are those resulting in the need for treatment and/or interventions beyond monitoring and observation. "Serious" medication errors are those with life threatening and/or permanent adverse consequences.

#### **CPS Inpatient Medication Errors**



SIGNIFICANCE: "Minimal" severity med errors are tracked and reviewed for inpatient but not shown here in order to emphasiize the rarer but higher profile categories of error: "Moderate" medication errors are those resulting in the need for treatment and/or interventions beyond monitoring and observation. "Serious" medication errors are those with life threatening and/or permanent adverse consequences.

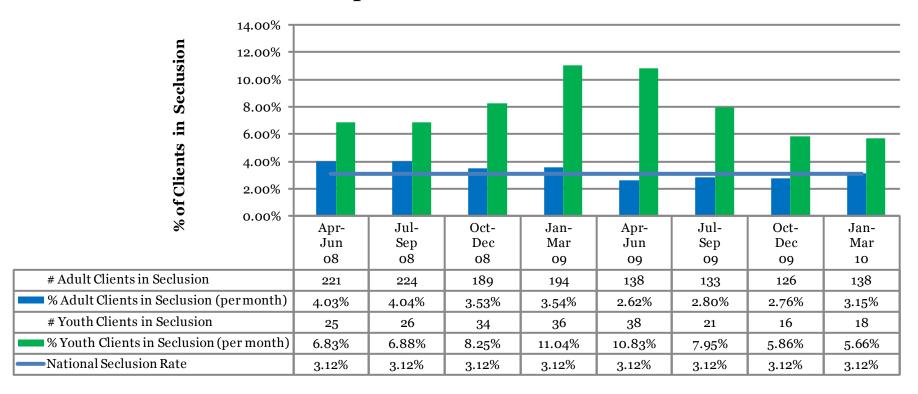
# **CPS Inpatient Restraint Use**



NOTE: This includes all restraint types combined -- most youth restraints are brief manual holds National average restraint use rate for FY07 was 4.92%, but that was primarily adult facilities.

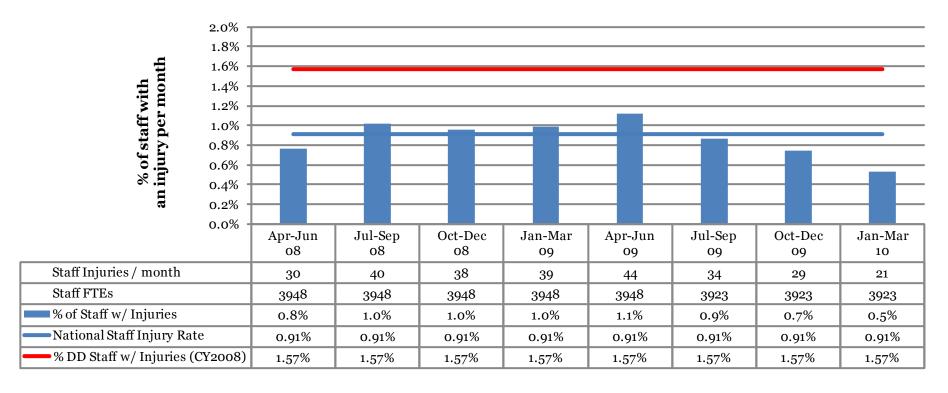
SIGNIFICANCE: CPS has several projects under way to help reduce reliance on restraint use. It is too early to declare success for these projects, but the recent trend in the youth restraint usage rate in particular is very encouranging.

#### **CPS Inpatient Seclusion Use**



NOTE: National average seclusion use rate for FY07 was 3.12%, but that was primarily adult facilities. SIGNIFICANCE: Seclusion use is tracked as part of the projects under way to reduce restraint use, and the recent trends in seclusion usage are similarly encouraging.

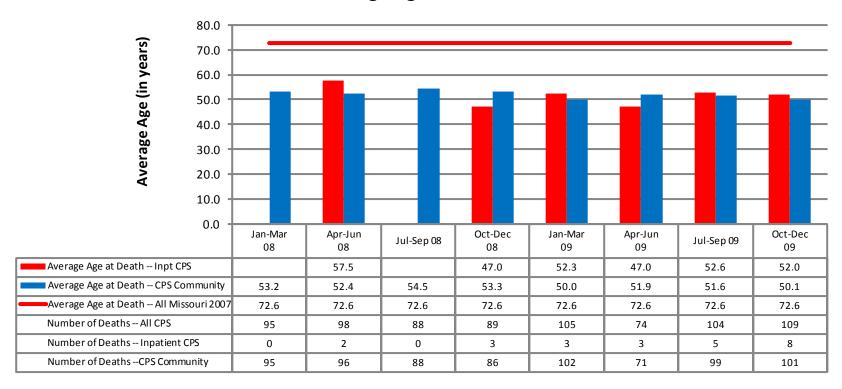
#### **CPS Inpatient Direct Care Staff Injuries**



NOTE: Includes injuries requiring any medical care or hospitalization, but not first aid only. National average for inpatient staff in calendar 2008 (ORYX) was .91% of staff per month.

SIGNIFICANCE: It is probably too soon to declare this a trend, but the decline in staff injury rates for the last 3 quarters is encouraging.

#### **CPS Average Age at Death**

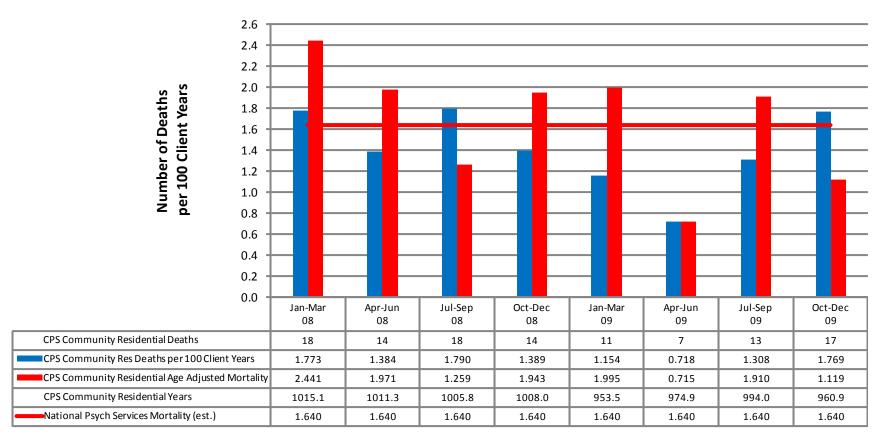


NOTE: Deaths reported for all CPS Clients versus inpatient and community subpopulations.

All Missouri 2007 average is calculated from the most recent available "Missouri Vital Statistics", 2007.

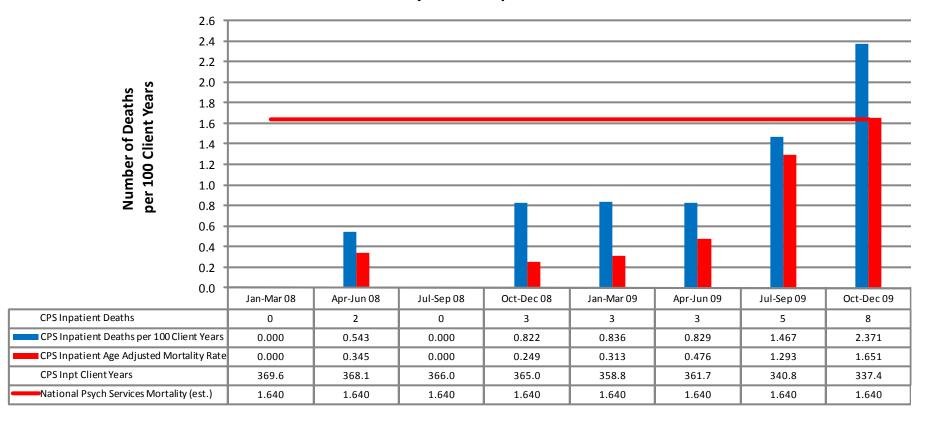
SIGNIFICANCE: National studies show that the clients of state mental health agencies die 20-25 years younger than the general population. Unfortunately, Missouri is right in line with this alarming statistic. This underlines the importance of various efforts to better integrate the physcial and mental health care of CPS clients throughout the state.

#### **CPS Mortality Rate in Community 24\*7 Care**



NOTE: Deaths reported for clients in 24\*7 care. Per 100 client years compares to the Missouri community mortality rate of .92 deaths per 100 Missouri residents. (2007 MO Vital Statistics). The age adjusted mortality rate for all of Missouri in 2007 was .82 deaths per 100 residents. National studies report clients of psychiatric services with twice the community average mortality rate (1.64) -- that is the red line above.

#### **CPS Mortality Rate in Inpatient Care**

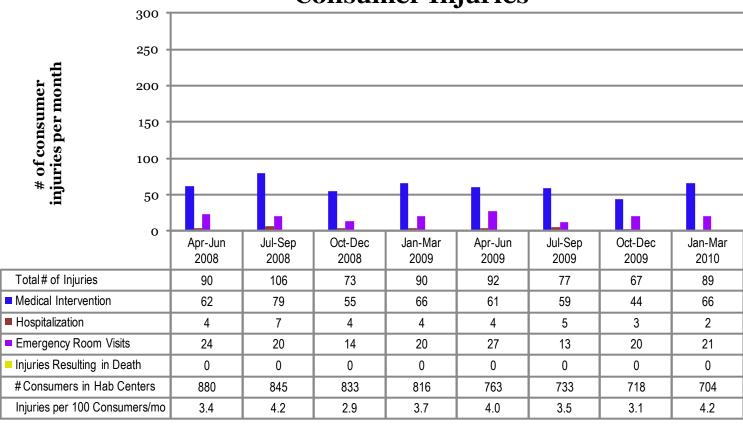


NOTE: Deaths reported for clients in inpatient. Per 100 client years compares to the Missouri community mortality rate of .92 deaths per 100 Missouri residents. (2007 MO Vital Statistics). The age adjusted mortality rate for all of Missouri in 2007 was .82 deaths per 100 residents. National studies report clients of psychiatric services with twice the community average mortality rate (1.64) -- that is the red line above.

# Division of Developmental Disabilities

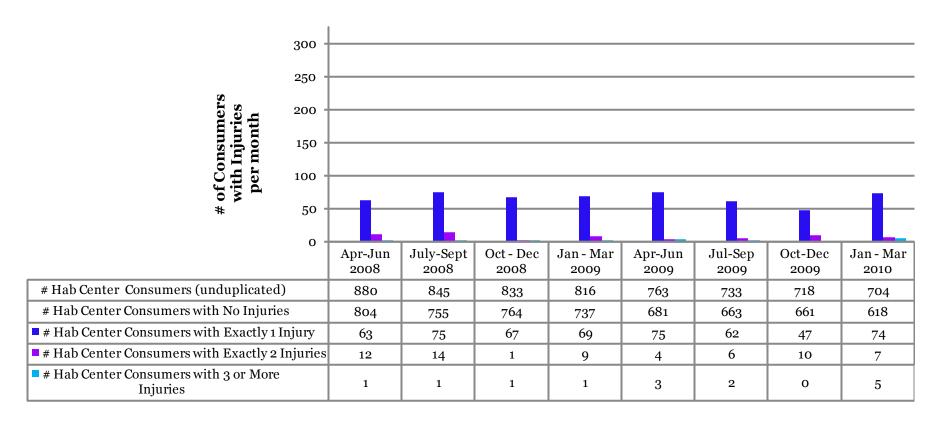


# Division of DD Habilitation Centers Consumer Injuries



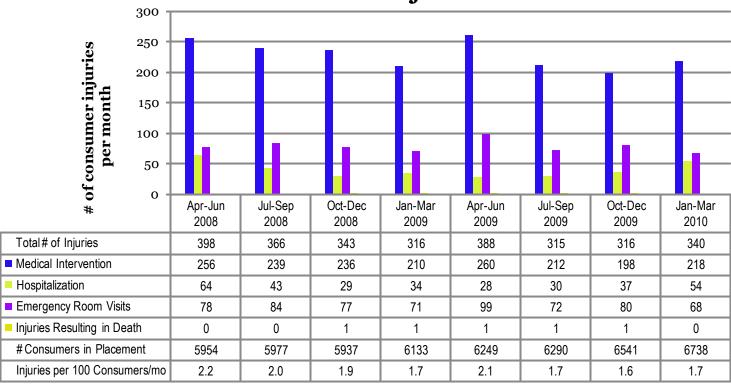
NOTE: Data reflects injuries requiring more than minor first aid as an intervention - previous charts included minor first aid as an intervention. Medical intervention denotes care requiring attention by a licensed professional and could occur either on campus or in the community. Hospitalization and ER visits would be off campus at community hospitals.

# Division of DD Habilitation Consumers Consumers with 0, 1, 2, or 3+ Injuries



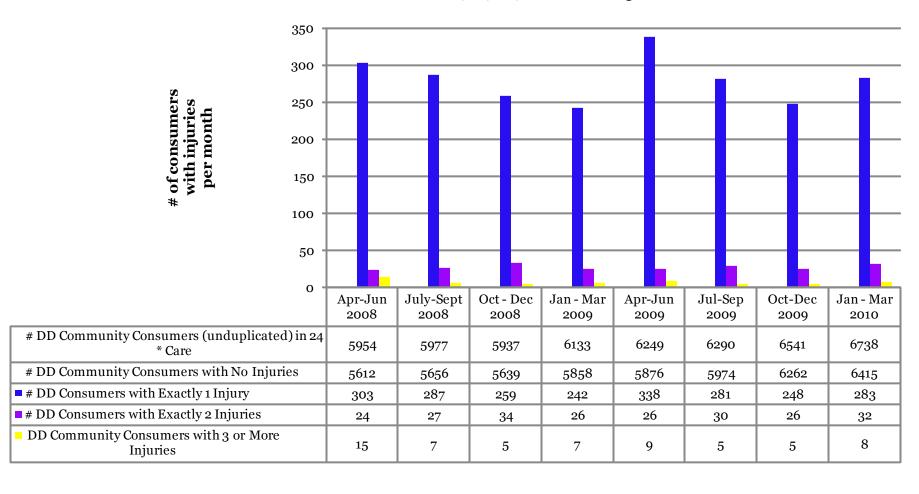
NOTE: An injury is defined as that which required treatment of more than minor first aid.

# Division of DD Community Consumer Injuries

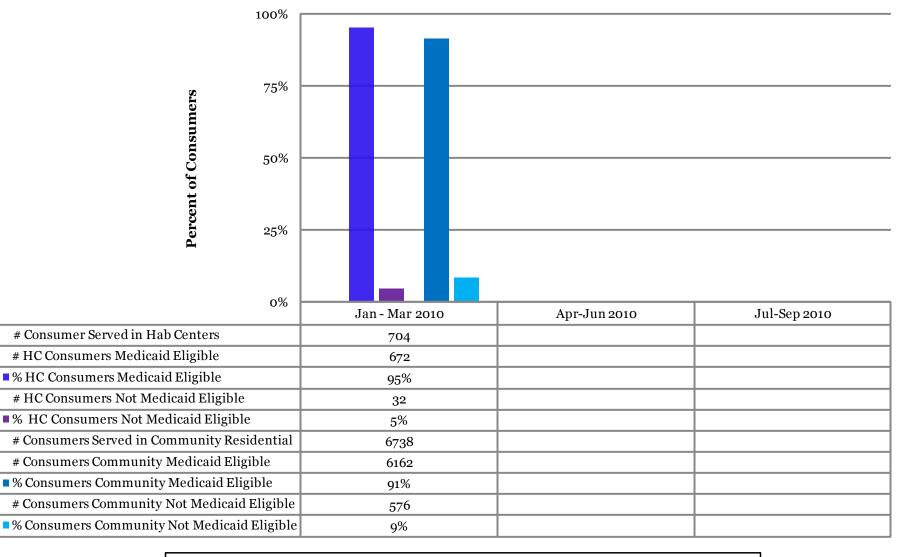


NOTE: The increase in census numbers in the last three quarters is due in part to data correction of program codes in the CIMOR system. Data reflects injuries requiring more than minor first aid as an intervention - previous charts included minor first aid as an intervention. Medical intervention denotes care requiring attention by a licensed professional and for community consumers indicates care provided in primary care physician's office or urgent care.

# Division of DD Community Consumers with 0, 1, 2, or 3+ Injuries

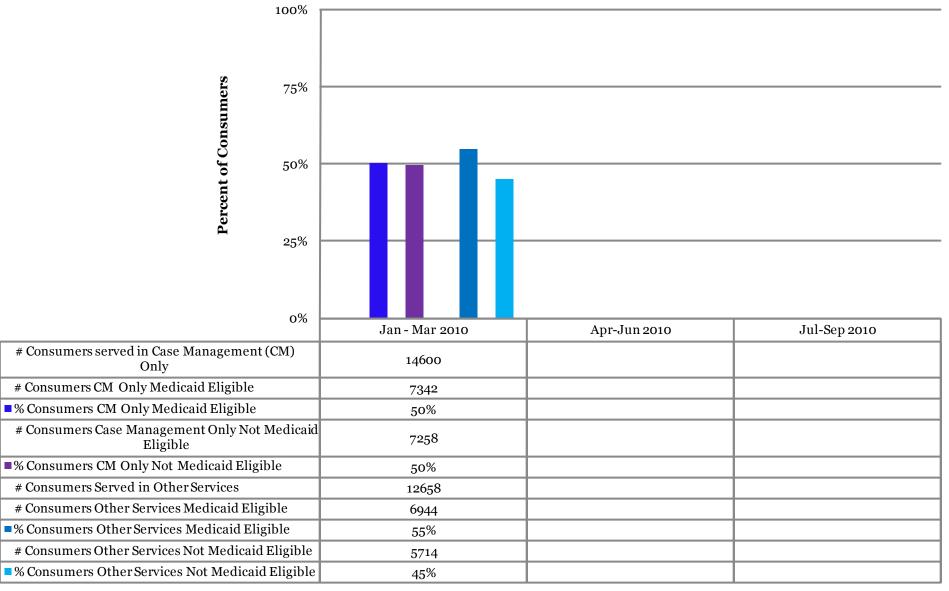


# Division of DD Residential Services Medicaid and Non-Medicaid



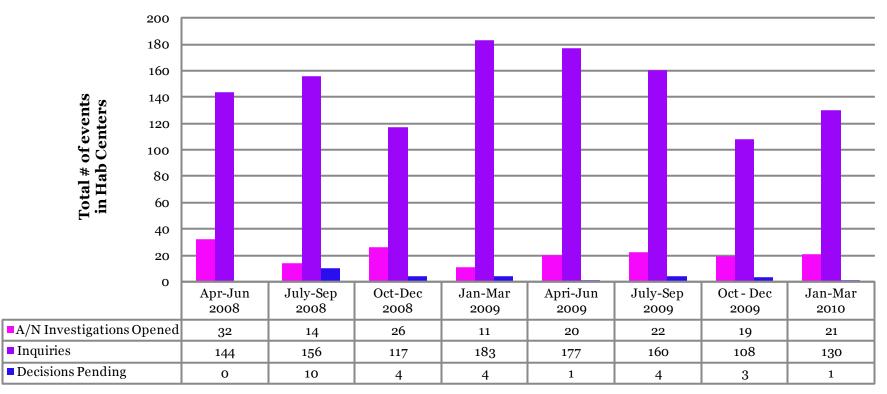
Note: Jan-Mar 2010 is the first quarter for reporting Medicaid and Non-Medicaid data.

# Divison of DD Non-Residential Services Medicaid and Non-Medicaid



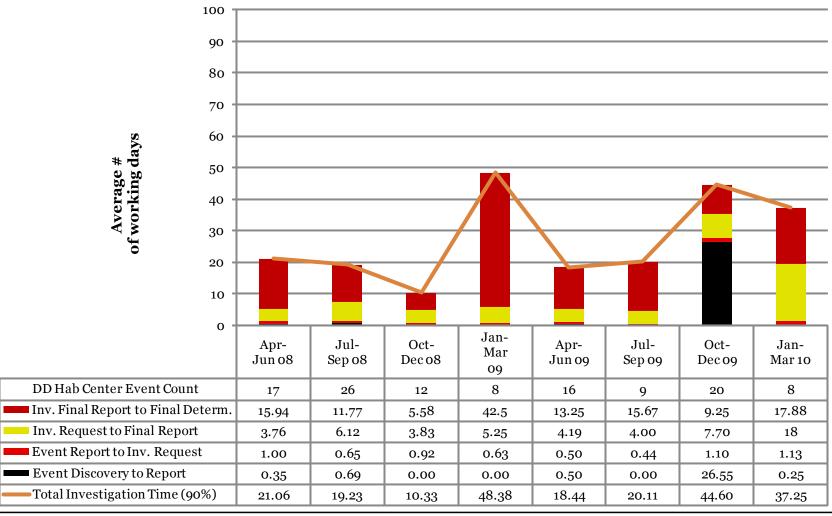
Note: Jan-Mar 2010 is the first quarter for reporting Medicaid and Non-Medicaid Eligible data.

# Division of DD Habilitation Centers Inquiries into Potential Abuse/Neglect Allegations



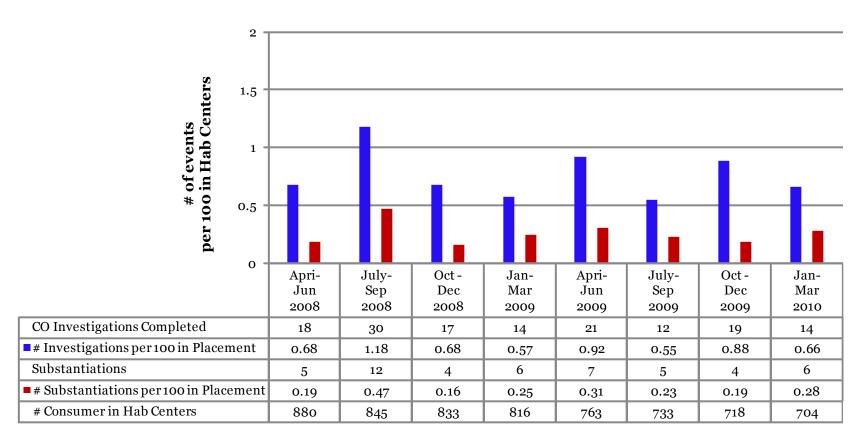
NOTE: If an allegation is made but has not yet been assigned an investigation or inquiry, it is counted as "pending" above. If an event initially had an inquiry but then an A/N investigation, it is counted only as an investigation to ensure an unduplicated count of cases under review. Also note that a "decision" for an investigation is only the start of the investigation process. When a final judgment is made regarding an allegation, it is called a "determination". An inquiry is the process of gathering facts surrounding an event, complaint or upon discovery of unknown injury to determine whether the incident or event is suspect for abuse or neglect.

#### **Duration of Investigation Process Habilitation Centers**



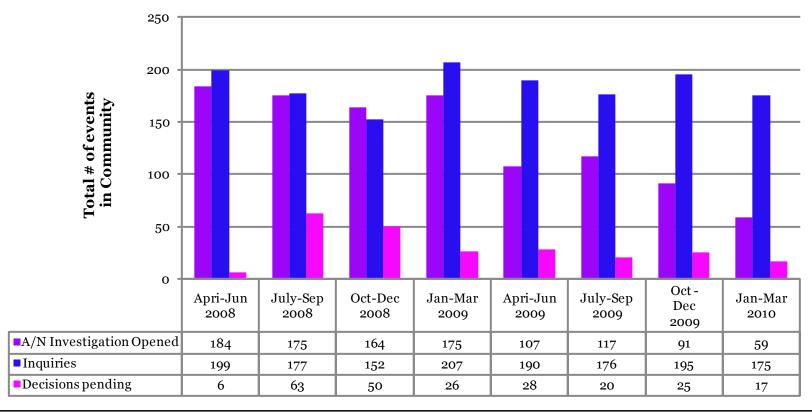
NOTE: Timelines are divided into 4 distinct stages of the investigation. The bars show the average duration (in working days) for all final determinations made in each quarter, whereas the line superimposes the overall average duration of 90% of the cases. The 90% is used in order to show a more "typical" timeline excluding outlier cases.

#### Division of DD Habilitation Centers Abuse and Neglect Investigations



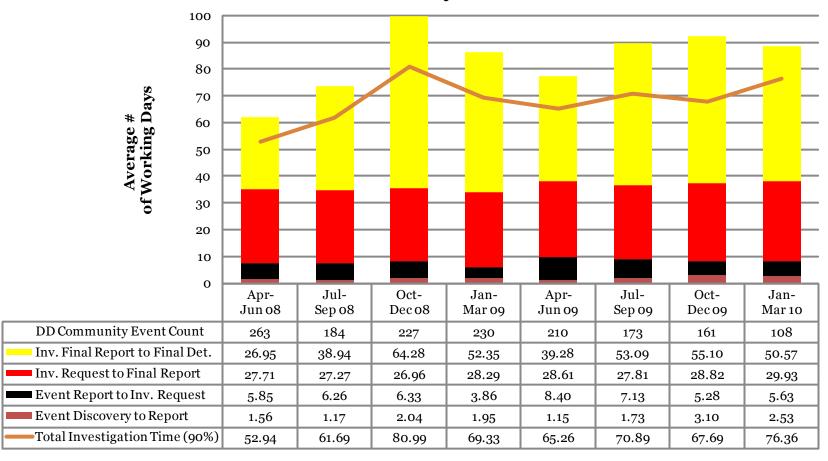
NOTE: Investigations and Substantiations are a count of the number of events, not the number of alleged perpetrators or victims. Also, both counts reflect cases finalized in the quarter reported. We are using unique consumers in placement per month in order to use the same measure as community rate. Excludes Neglect II and Verbal abuse for all quarters reflected.

#### **Division of DD Community Inquiries into Potential Abuse/Neglect Allegations**



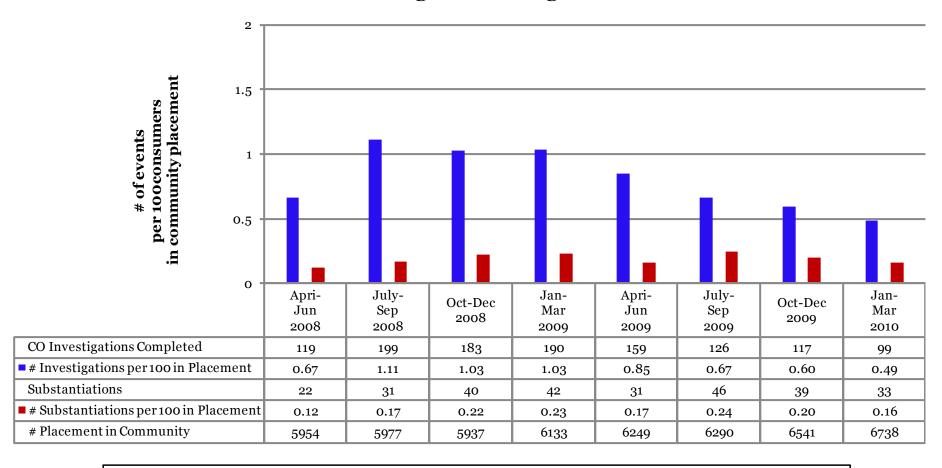
NOTE: If an allegation is made but has not yet been assigned an investiation or inquiry, it is counted as "pending" above. If an event intially had an inquiry but then an A/N investigation, it is counted only as an investigation to ensure an unduplicated acount of cases under review. Also note that a "decision" for an investigation is only the start of the investigation process. When a final judgment is made regading an allegation it is called a "determination". Definition - Inquiry: process of gathering facts surrounding an event, complaint or upon discovery of unknown injury to determine whether the incident or event is suspect for abuse or neglect.

# **Duration of Investigation Process DD Community**



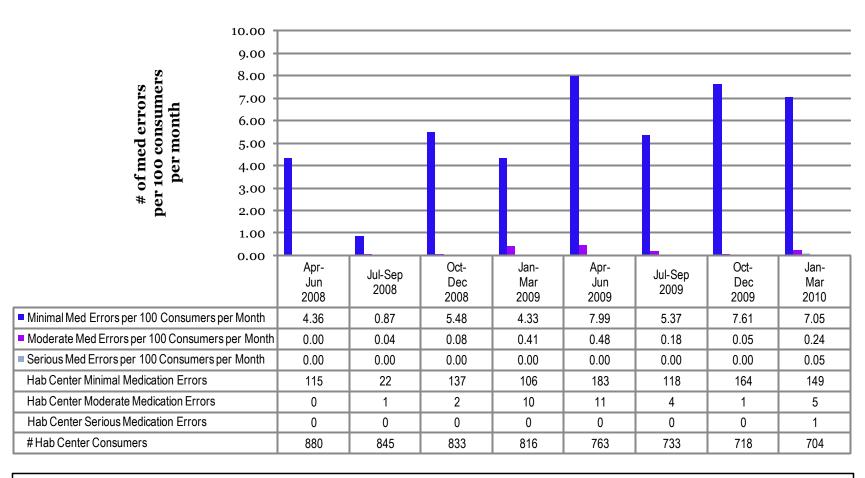
NOTE: Timelines are divided into 4 distinct stages of the investigation. The bars show the average duration (in working days) for all final determinations made in each quarter, whereas the line superimposes the overall average duration of 90% of the cases. The 90% is used in order to show a more "typical" timeline excluding outlier cases.

## **Division of DD Community Abuse and Neglect Investigations**



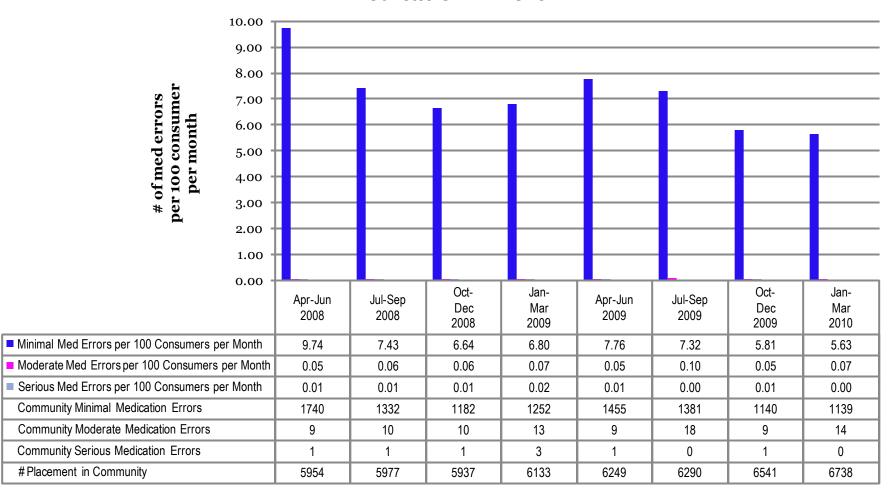
NOTE: The increase in census numbers in the last three quarters is due to corrections in the programs codes in the CIMOR system. Investigations and Substantiations are a count of the number of events, not the number of alleged perpetrators or victims. Also, both counts reflect cases finalized in the quarter reported. Consumers in placement per month are used to compare both Hab Center and community residents. Excludes Neglect II and Verbal abuse for all quarters reported.

#### Division of DD Habilitation Centers Medication Errors



NOTE: Definition of med error: "Minimal"- no or minimal adverse consequences and no treatment or other interventions other than monitoring or observation. "Moderate" - is short term reversible adverse consequences and receives treatment and/or intervention in addition to monitoring. "Serious"-life threatening and/or permanent adverse consequences or results in hospitalization.

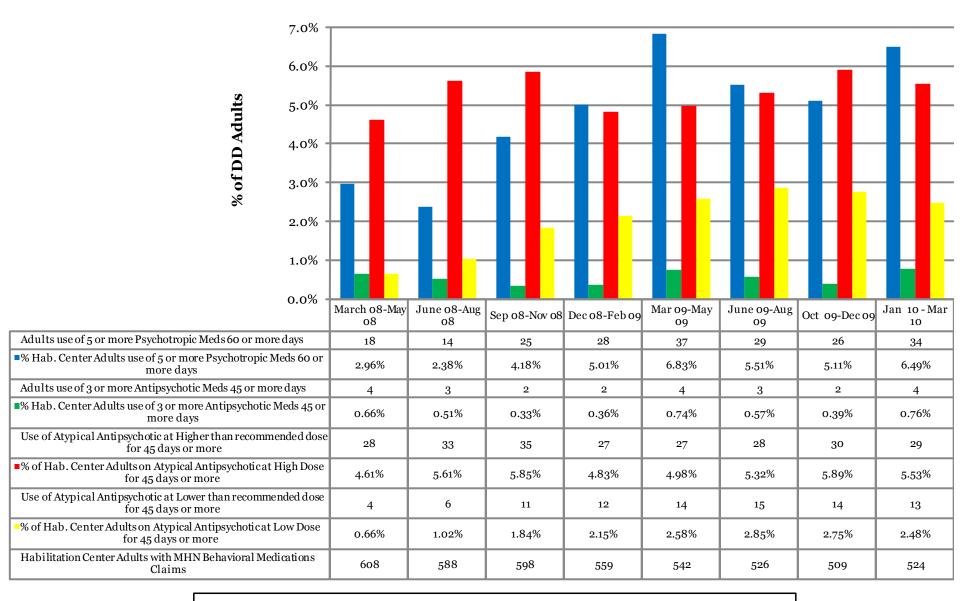
#### **Division of DD Community Medication Errors**



NOTE: The increase in census numbers in the last two quarters is due to a correction of program codes in he CIMOR system. Definitions of med errors: "Minimal" - no or minimal adverse consequences and no treatment or interventions other than monitoring or observation.

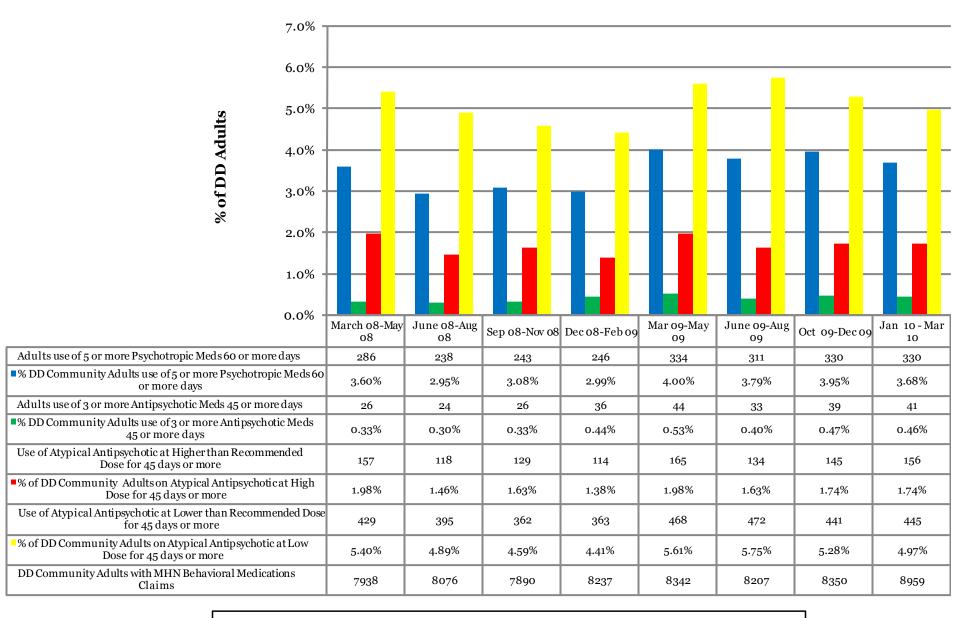
"Moderate" - short term or reversible adverse consequences and receives treatment and/or intervention in addition to monitoring. "Serious" - life threatening and/or permanent consequences or results in hospitalizations.

#### **DD Habilitation Center Adult Medication Screens**



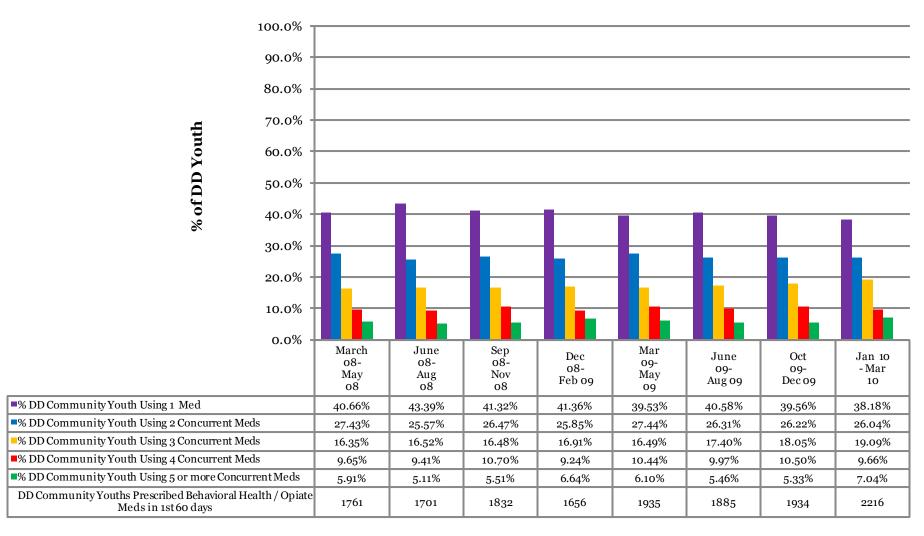
NOTE: "Quarters" do not match other charts - using time periods set by most recent consecutive "Missouri CMHC Behavioral Pharmacy Management Program" reports.

#### **DD Community Adult Medication Screens**



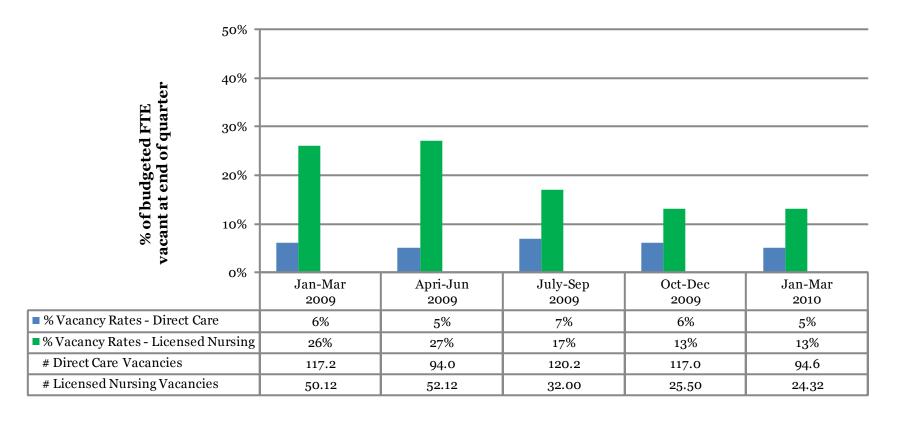
NOTE: "Quarters" do not match other charts - using time periods set by most recent consecutive "Missouri CMHC Behavioral Pharmacy Management Program" reports.

#### DD Community Youth Prescribed Multiple Behavioral Health Medications



NOTE: This identifies the maximum number of concurrent behavioral health and opiate drugs prescribed in the first 60 days of the 90 day reporting period. Opiates are not included in this count.

# **Division of DD Habilitation Centers Staff Vacancy Rates**

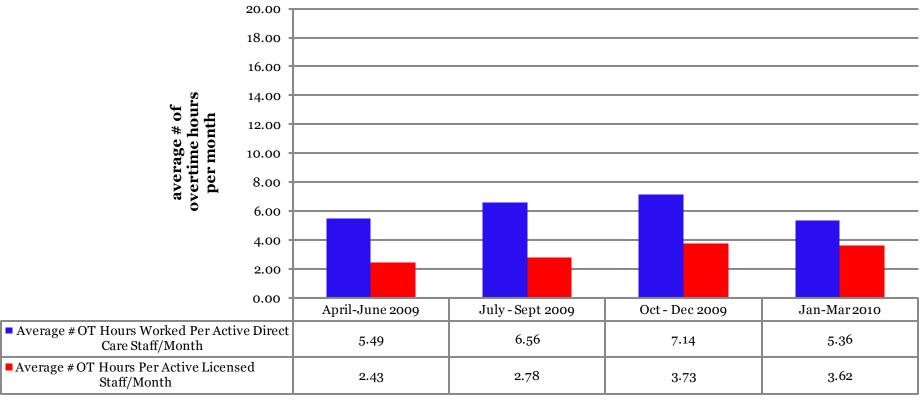


NOTE: Vacancy rates are based upon last day of the month for the quarter.

Definitions: Direct Care - DAI, DAII, DAIII.

Licensed Nursing - Licensed Practical Nurses (LPN) and Registered Nurses (RN).

# Division of DD Habilitation Center Staff Overtime Hours

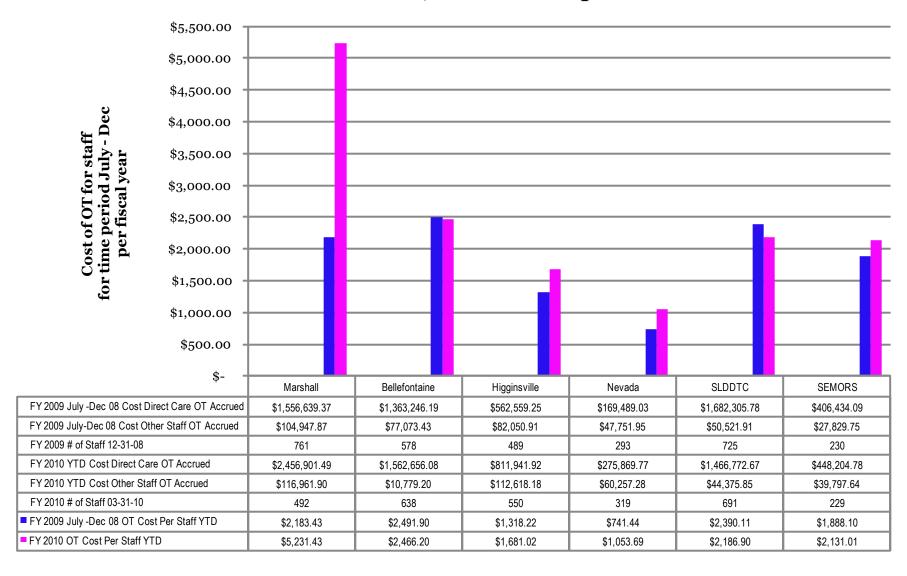


NOTE: Staff noted are active staff.

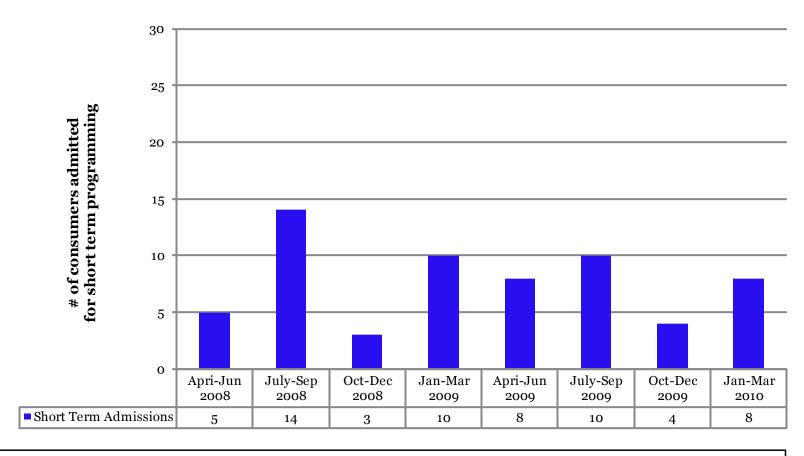
Definitions: Direct Care - Developmental Assistant I (DAI), DAII, DAIII.

Licensed Nursing: Licensed Practical Nurses (LPN) and Registered Nurses (RN).

#### **Habilitation Center Overtime Accrued** FY 2009-FY2010 Comparison

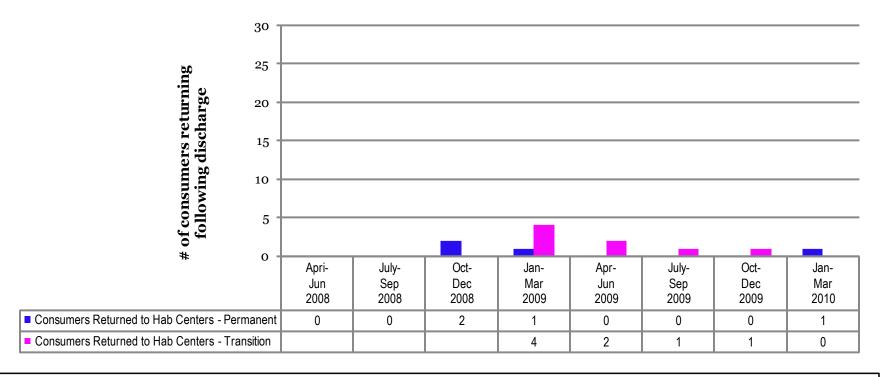


# Division of DD Short Term Admissions Habilitation



Definition: Total number of consumers admitted to HC from any Community Provider for medical and/or behavioral short term support with intention of returning back to their home in the community.

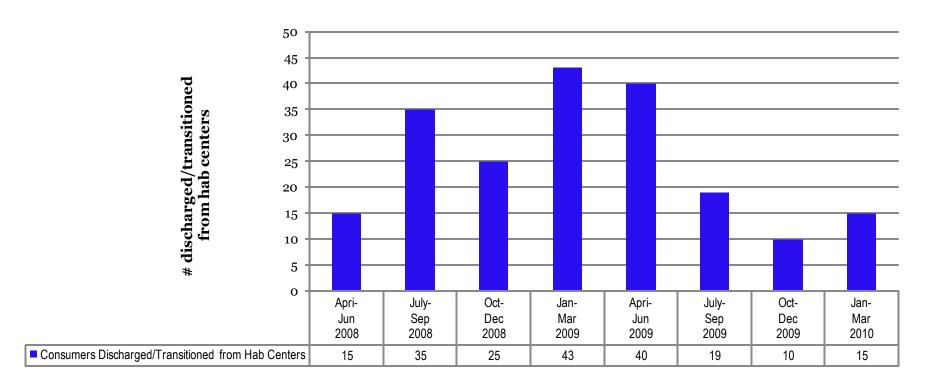
# **Division of DD Consumers Readmitted to Habilitation Centers After Transition to the Community**



Permanent: Total number of consumers previously discharged from the HC within the last 12 months that returned during report period with no plans to move back to community (i.e., something went wrong with placement).

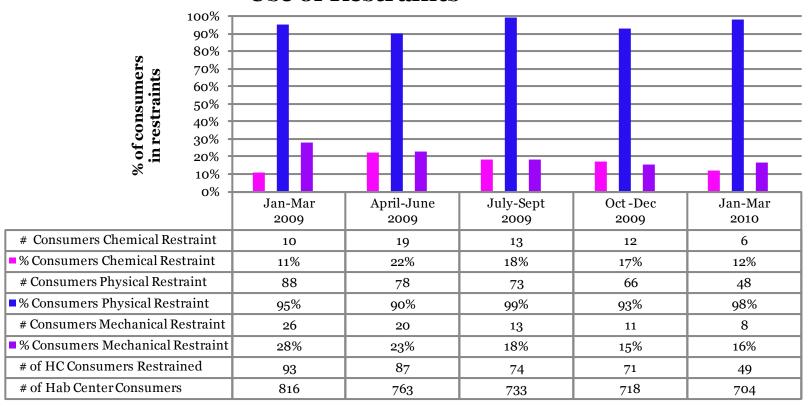
Transition: Total number of consumers, previously discharged from the HC withing the past 90 days, that returned during report period as part of transition plan for medical and/or behavioral support and are expected to return to their home in the community.

# Division of DD Consumers Discharged/Transitioned from Habilitation Centers



This reflects the total number of consumers who lived on the campus of the HC and transitioned to community waiver providers or who were discharged to other settings during the reporting period.

# **Division of DD Habilitation Centers Use of Restraints**



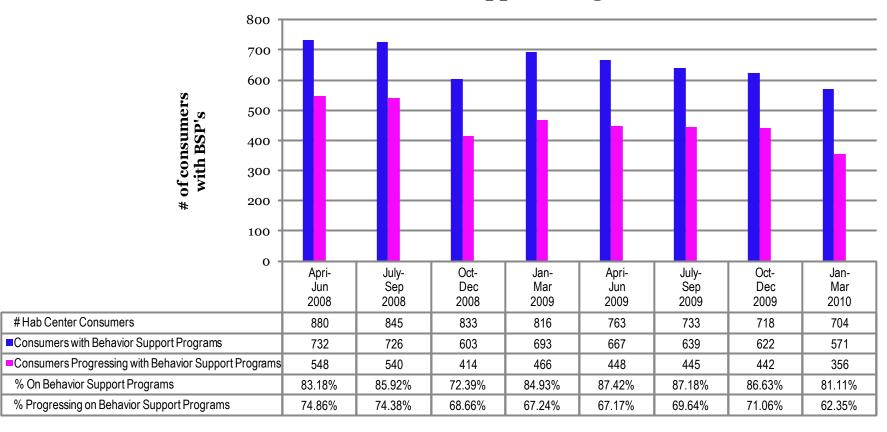
NOTE: Each consumer who experienced at least one chemical, physical, mechanical restraint is counted so duplication occurs. For example, one consumer may experience a chemical restrain and a physical restraint. They are counted in both categories. Percentage of each type of restraint is based on total number restrained for the quarter.

Chemical Restraint: As defined in section 630,005 RSMO, are drugs which are prescribed or administered to temporarily restrain an individual who is presenting a likelihood of serious physical harm to him/herselfor others. Medications for the purpose of affecting behaviors includes major and minor tranquilizers and antidepressents (such as 1 mg Ativan). Chemical restraints do not include drugs that may have behavior modifying effects but that are not prescribed or administrered for that purpose (such as anticonvulsants). Physical Restraint: Manual hold involving a restriction of an individual's voluntary movement (such as Mandt one person hold).

Mechanical restraint: Any device, instrument or physical object used to confine or otherwise limit an individual's freedom of movement that he/she cannot easily remove (such as cuffs).

# Restrained: Total number of different consumers (long term, on campus only) who experienced at least one restraint (chemical, physical, and/or mechanical) during the quarter for behavioral reasons, no medical immobilization, no medical procedures.

# Division of DD Habilitation Centers Consumers with Behavior Support Programs

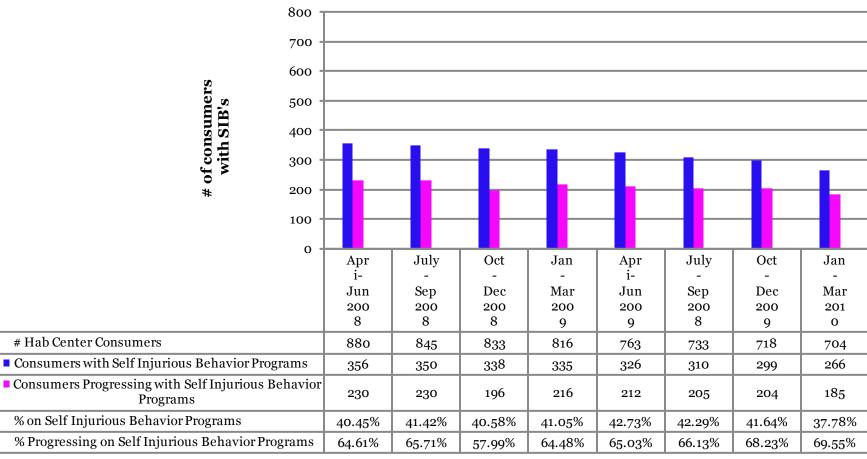


NOTE: Consumers placed on BSP's may be those who have been prescribed medication for a psychiatric disorder or who exhibit behaviors that interfere with their level of functioning. Number is based upon average of three months in the quarter.

Definition - Consumers with BSP's: Consumers with an individualized plan of behavior analytic procedures developed to systematically address skills or behaviors to be learned and behaviors to be reduced or eliminated.

Definition - Consumers progressing with BSP's: Consumers who are at baseline or below for their targeted behaviors identified in their BSP. Number is based on average for the quarter.

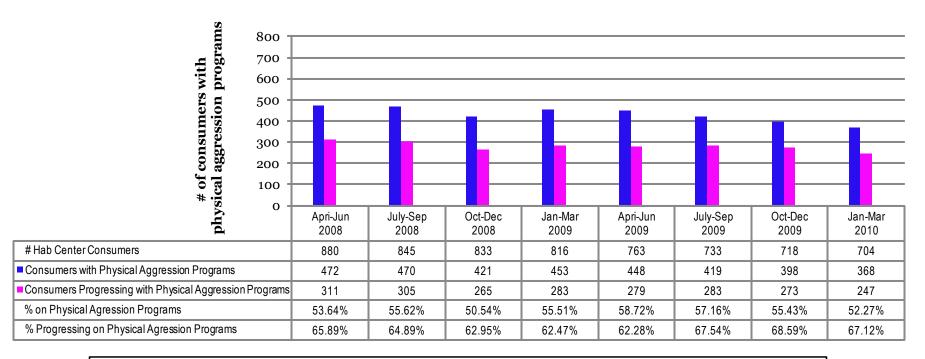
# **Division of DD Habilitation Centers Consumers with Self Injurious Behavior Programs**



Self Injurious Behavior Program: A consumer with a Behavior Support Program that includes a program developed to systematically reduce or Eliminate Self Injurious Behaviors (incidents of self harm) such as slapping self in the face, biting self on hand, or banging own head.

Progressing with Self Injurious Behavior Programs: a consumer who is at baseline or below for their Self Injurious Behavior Program.

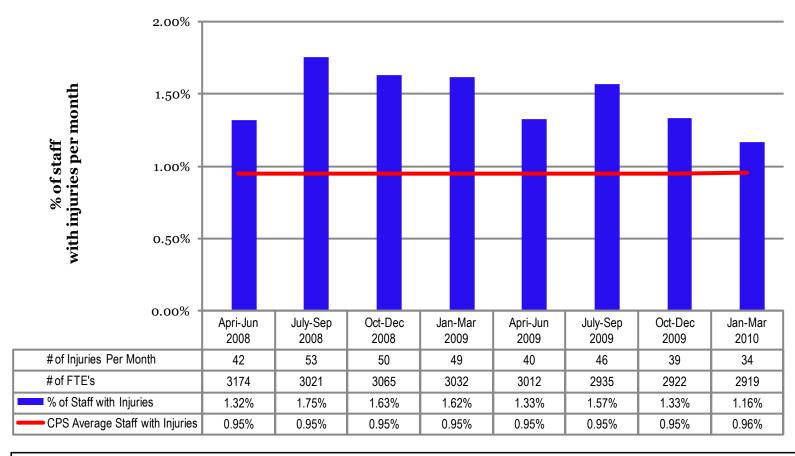
# Division of DD Habilitation Centers Consumers with Physical Agression Programs



Definition - Physical Aggression Programs: Consumers with a Behavior Support plan that includes a program designed to reduce or eliminate Physical Aggression (such as hitting, kicking, throwing objects, biting) towards another person.

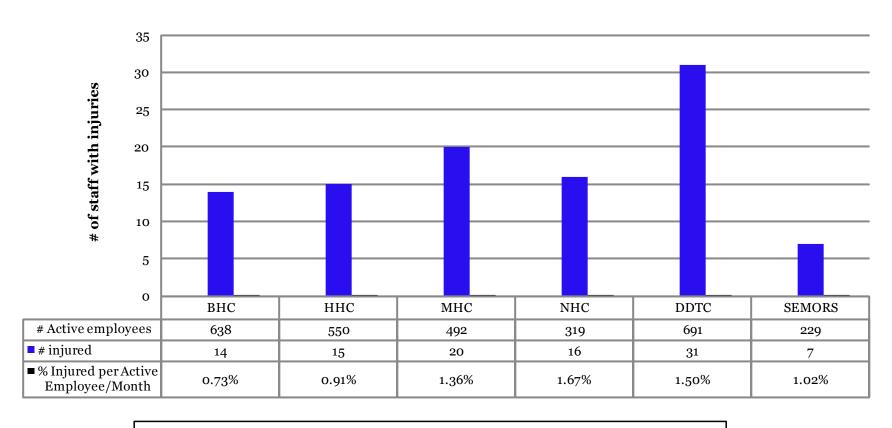
 $Definition - Progressing with \ Physical \ aggression \ programs: \ Consumers \ who \ are \ at \ baseline \ or \ below \ for \ their \ Physical \ Aggression \ program.$ 

# **Division of DD Habilitation Centers Staff Injuries**



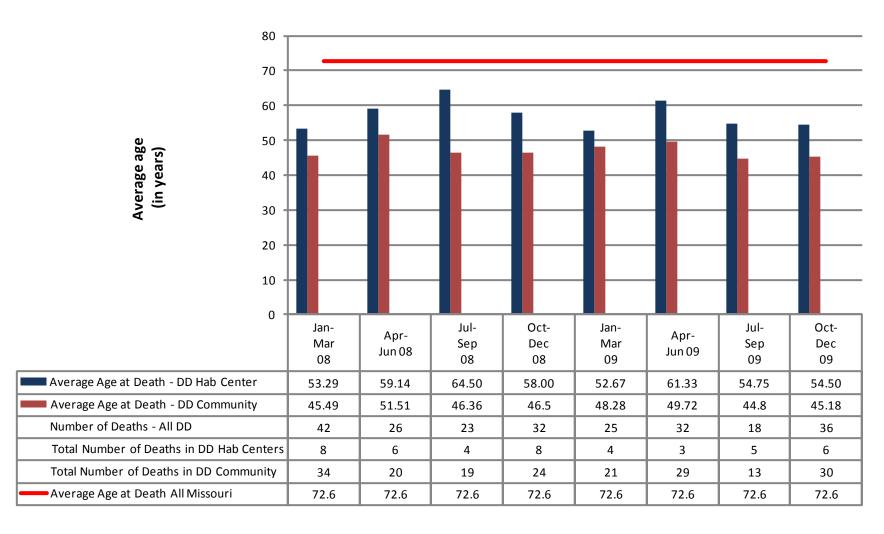
Reflects the total number of different employees who experienced at least one injury requiring medical treatment or hospitalization.

# Division of DD Habilitation Centers Staff Injuries by Facility Jan-Mar 2010



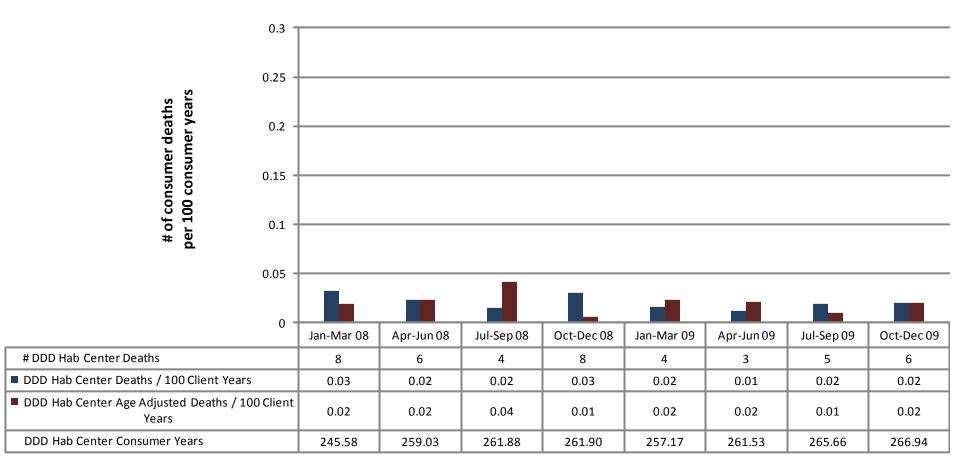
Definition: Total number of different employees who experienced at least one injury requiring medical treatment or hospitalization.

# **Division of DD Average Age at Death**



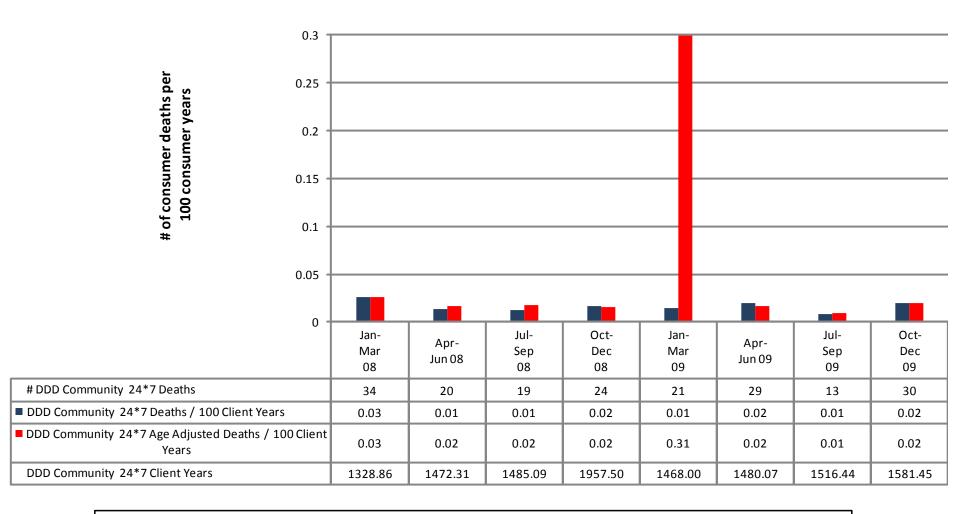
NOTE: Data reflects only consumers in residential (24 hour) care.

# Division of DD Habilitation Center Mortality Rates



NOTE: Literature search for comparable benchmarks showed much variation on how deaths and mortality data are reported; thus a comparable, meaningful benchmark has not yet been identified.

# **Division of DD Community Mortality Rates**

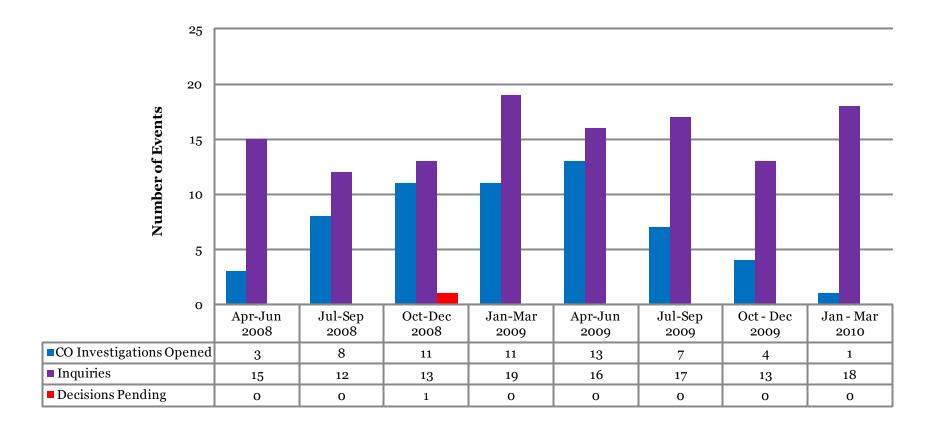


NOTE: Data only reflects consumers residing in residential settings. Ten of 30 deaths were unexpected. Literature search for comparable benchmarks showed much variation on how deaths and mortality data are reported; thus a comparable, meaningful benchmark has not yet been identified.

# Division of Alcohol and Drug Abuse



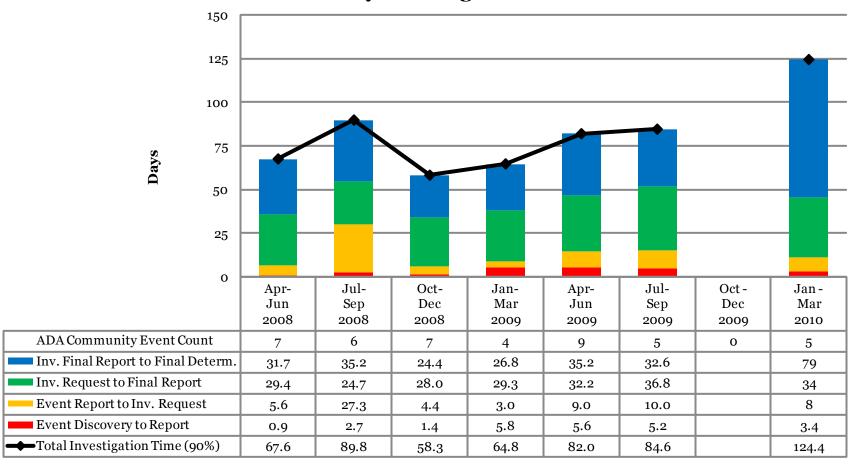
### **ADA Inquiries into Potential Abuse/Neglect Allegations**



NOTE: Data is based on the Event Date, not the date the incident was reported. If an allegation is made but has not yet been assigned an investigation or inquiry, it is counted as "pending". If an event initially had an inquiry and was elevated to an A/N investigation, it is counted only as investigation to ensure an unduplicated count of cases under review.

Significance: All but one potential abuse/neglect allegation have had an inquiry or investigation. The one allegation was made during the course of another investigation.

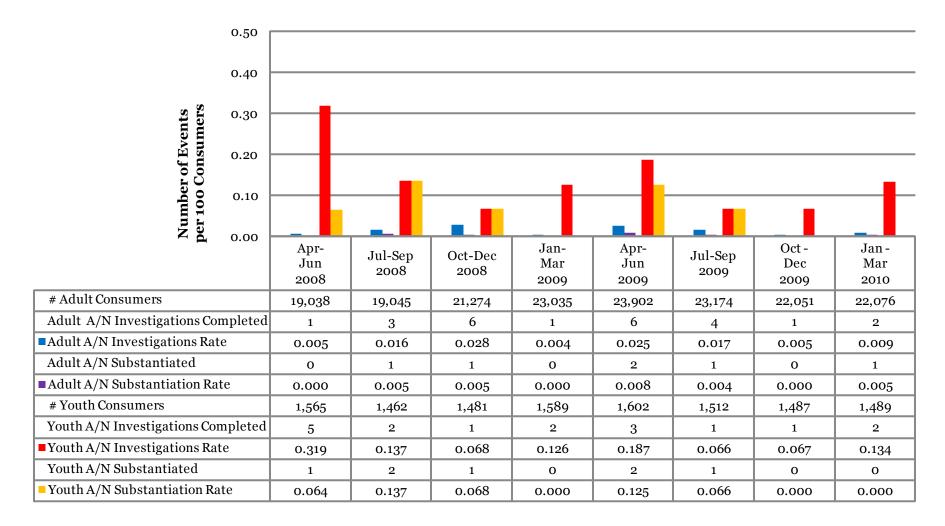
# **ADA Community Investigations Timelines**



NOTE: Timelines are divided into 4 distinct sections or stages of an investigation. The bars include average times for all final determinations made in each quarter, whereas the black line includes 90% of all cases in order to show typical timelines excluding the top 10% outliers.

Significance: ADA community investigations are realtively few and are conducted in a timely manner with some variance in the Jul-Sep 2008 quarter due to staff turnover. There was also variance in the Jan-Mar 2010 quarter due to no final determinations in Oct-Dec 2009.

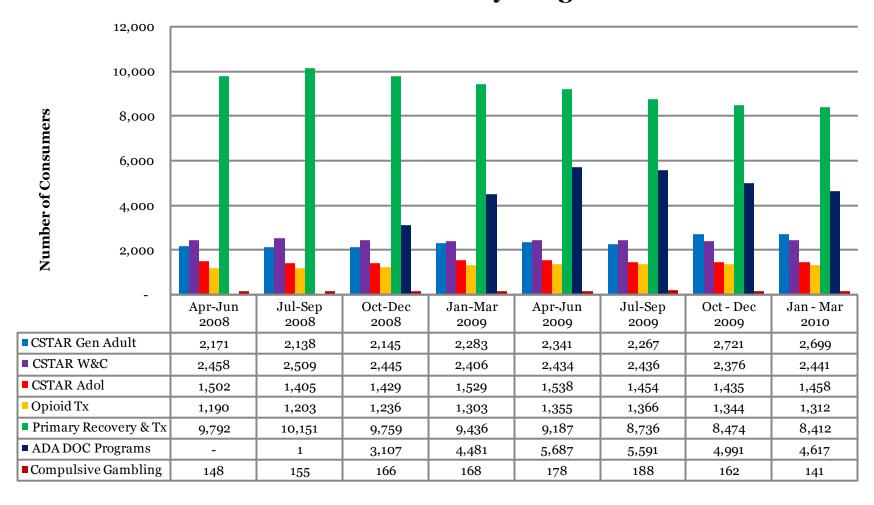
# **ADA Abuse/Neglect Investigations**



NOTE: The above statistics do NOT include substantiations with only Neglect 2 or Verbal Abuse findings. Investigations and substantiations are a count of the number of events, not the number of alleged perpetrators or victims. Also, Investigation and substantiation counts reflect cases finalized in the quarter.

Significance: ADA has relatively few abuse/neglect investigations and substantiations each quarter.

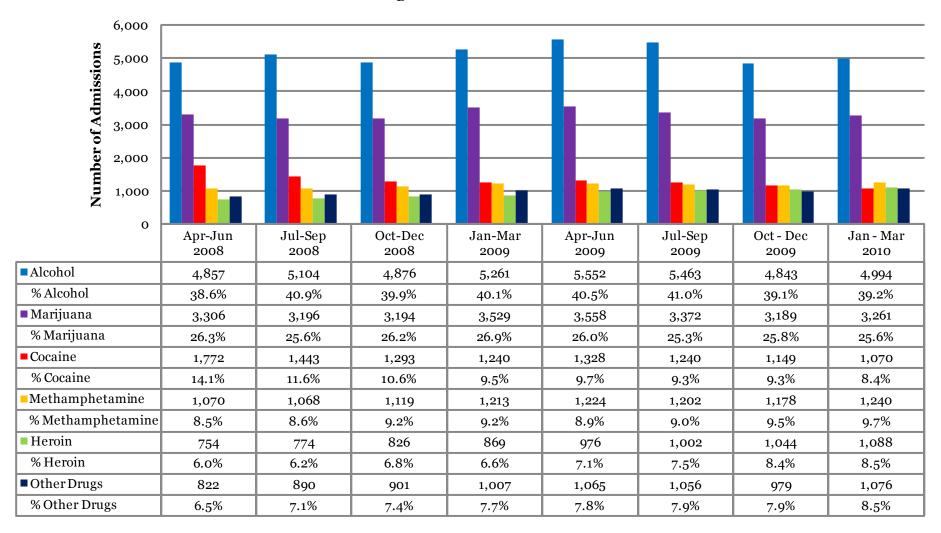
# **ADA Consumers Served By Program**



NOTE: Consumers could be enrolled in more than one program during the quarter. For example, a consumer will generally be enrolled in both an Opioid Treatment program and a CSTAR or a Primary Recovery Program.

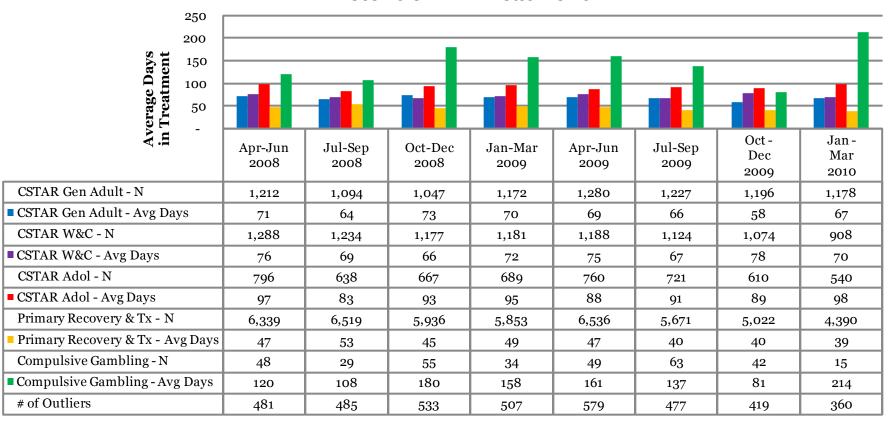
Significance: The CSTAR General Adult program has seen an increase in number served while the other CSTAR programs and Compulsive Gambling programs have a fairly constant rate of consumers served. Primary Recovery and ADA DOC programs have had a decline in number of consumers served due to CSTAR conversions and cuts to General Revenue.

#### **ADA Drug of Choice at Admission**



Significance: Alcohol and marijuana admissions are fairly constant at 40% and 26% respectively. Over the past 24 months, there has been a 2.5% increase in heroin admissions; 1.3% increase in methamphetamine admissions; and 5.7% decrease in cocaine admissions. There was a 2% increase in other drugs due to the increase in consumers seeking treatment for dependence on

#### **ADA Retention In Treatment**



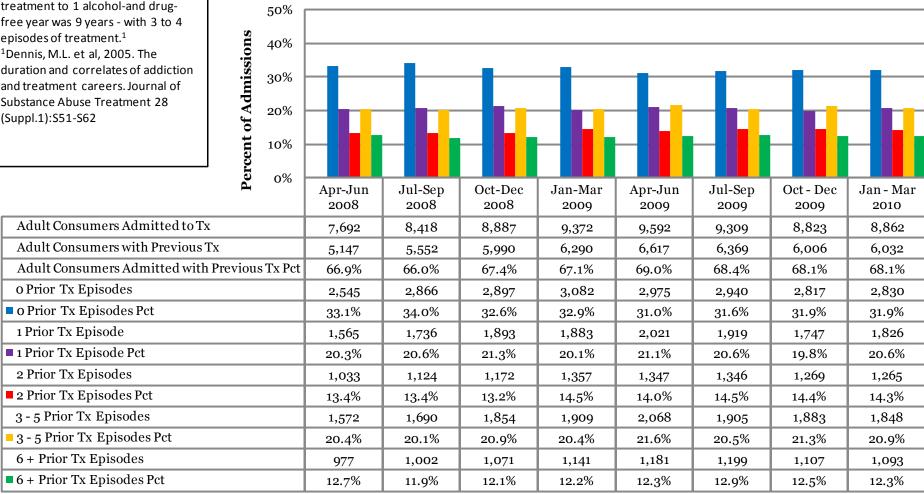
NOTE: Average days in treatment include both residential and outpatient services with the exception of Compulsive Gambling which only includes outpatient services. Length of stay was calculated using the program admission date and the last date of billable service. Outliers greater than two standard deviations above the mean were not included when calculating the average length of stay. *Primary Recovery & Tx does NOT include Corrections Primary Recovery Plus*.

NIDA's Principles of Drug Addiction Treatment states: "The appropriate duration for an individual depends on the type and degree of his or her problem and needs. Research indicates that most addicted individuals need at least three months in treatment to significantly reduce or stop their drug use and that the best outcomes occur with longer durations of treatment."

Significance: Retention in Primary Recovery is decreasing. CSTAR General Adult has an average retention over the past 24 months of 67 days. CSTAR Women and Children has an average retention of 70 days. Over the past 24 months CSTAR Adolescent retention has averaged approximately 90 days. Compulsive Gambling average retention varies due to the low number of discharges.

NOTE: One recent study found that the median time from first treatment to 1 alcohol-and drugfree year was 9 years - with 3 to 4 episodes of treatment.<sup>1</sup> <sup>1</sup>Dennis, M.L. et al, 2005. The duration and correlates of addiction and treatment careers. Journal of Substance Abuse Treatment 28 (Suppl.1):S51-S62

#### **ADA Adult Treatment Admissions With Prior ADA Treatment Episodes**

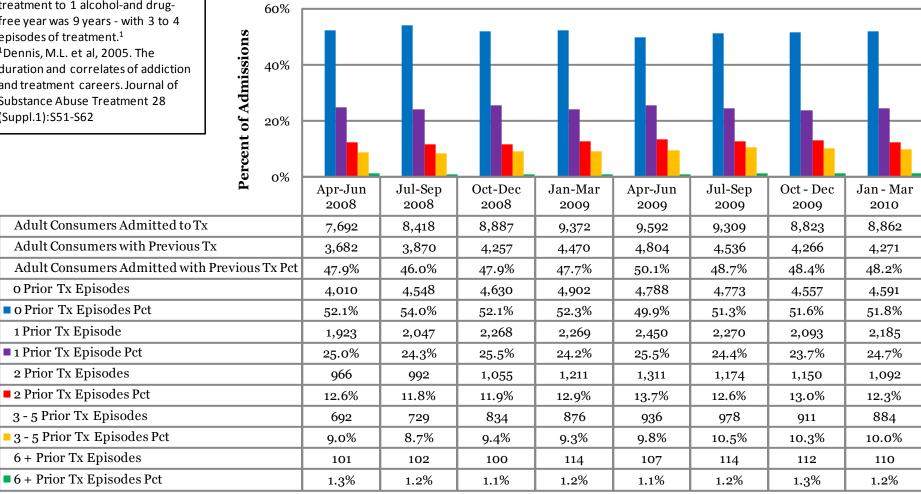


NOTE: The data above includes treatment programs only. Detox, SATOP, Recovery Support and Compulsive Gambling episodes of care were not included.

Significance: Approximately 2/3 of ADA consumers have had a prior treatment episode in his/her lifetime. Relapse is a part of the disease process and can be managed and minimized with appropriate treatment and aftercare.

NOTE: One recent study found that the median time from first treatment to 1 alcohol-and drugfree year was 9 years - with 3 to 4 episodes of treatment.1 <sup>1</sup>Dennis, M.L. et al, 2005. The duration and correlates of addiction and treatment careers. Journal of Substance Abuse Treatment 28 (Suppl.1):S51-S62

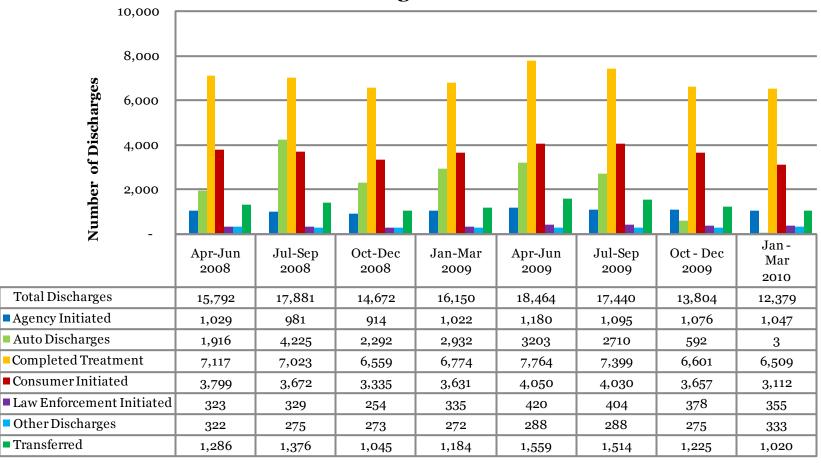
#### **ADA Adult Treatment** Admissions With Prior ADA Treatment Episodes in Past 36 Months



NOTE: The above data includes only treatment programs within 36 months of consumers' last admission within the quarter. Detox, SATOP, Recovery Support and Compulsive Gambling episodes of care were not included.

Significance: Half of admissions are for consumers who have not been enrolled in a treatment episode of care within the past 36 months. Approximately 11% of consumers admitted to a treatment episode of care have had 3 or more prior treatment episodes of care within the past 36 months.

#### **ADA Discharges**

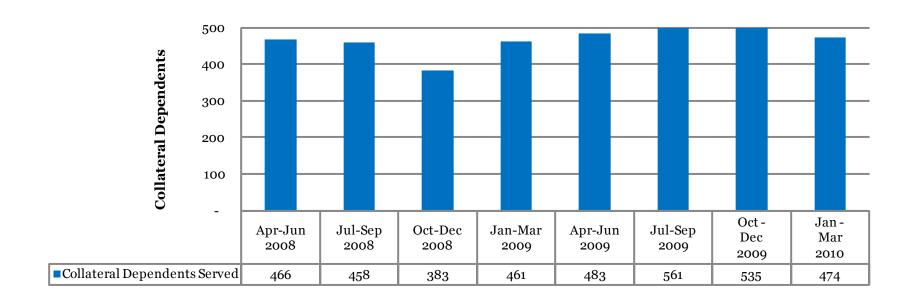


NOTE: Other discharges category includes the following discharge reasons: consumer died; consumer moved away; medical reasons.

NOTE: On July 25, 2008 the monthly Auto Discharge program was implemented and closed all episodes of care that had no service or billing activity within the past six months. The episode of care was closed and the discharge date was set to the last date of billable service. This will cause an increase in the number of Auto Discharges in previous quarters. The spike in number of auto discharges for the Jul-Sep 2008 quarter is due to three ADA DOC programs being closed on September 30, 2008. Data is unduplicated by consumer. The consumer's first discharge within the quarter is taken.

Significance: Slightly less than half of consumers complete treatment. Consumer dropped out of treatment is the most common reason for non-completion.

# **Collateral Dependents Served**

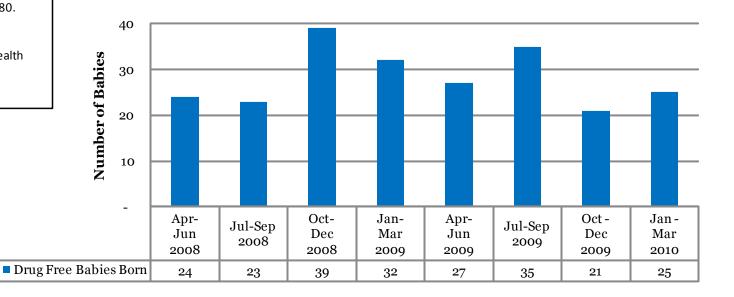


NOTE: A collateral dependent has no alcohol or drug abuse problem but is seeking services because of problems arising from his or her relationship with an alcohol or drug user who is engaged in treatment.

Significance: This chart shows the number of collateral dependents served each quarter. This number will vary each quarter due to several factors including number of consumers in treatment and number of consumers with children and/or a significant other.

## **Babies Born Drug Free**

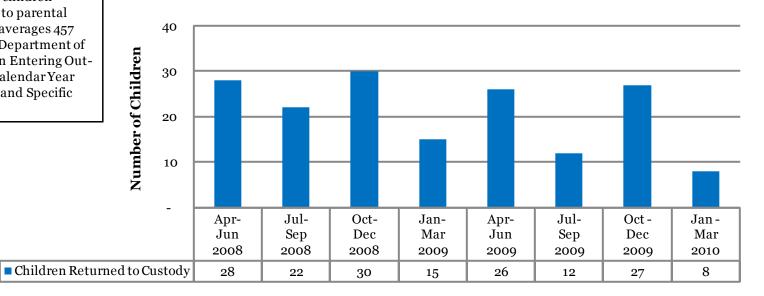
During 2007, there were 322 newborns affected by illicit drugs. The average number of drug affected births per quarter is 80. However, these numbers are underreported due to lack of standards for reporting. Missouri Department of Health and Senior Services, Bureau of Health Informatics. Patient Abstract System



Significance: The chart shows the number of babies born drug free to consumers enrolled in the CSTAR Women & Children's program. The number will vary due to several factors including number of pregnant women enrolled in the program, how late in the pregnancy the consumer seeks treatment, and substance abused. Since April 2008, the CSTAR Women & Children's program has provided treatment to pregnant females which resulted in 226 drug free births that without treatment may have been affected by alcohol or illicit drugs.

### **Children Returned to Custody**

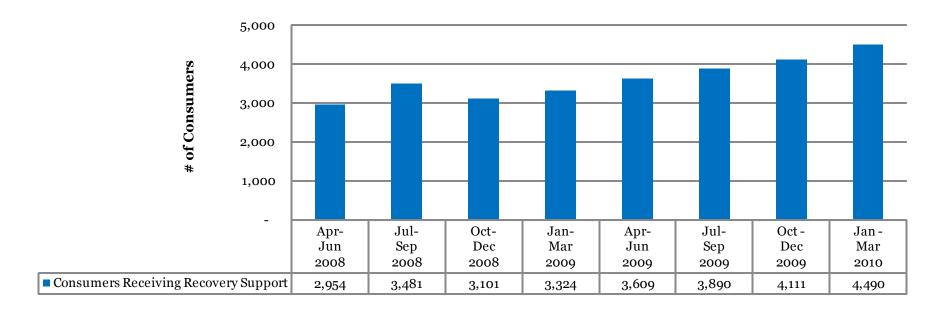
During 2009, there were 1,827 children removed from their homes due to parental alcohol and/or drug use which averages 457 children per quarter. Missouri Department of Social Services report - Children Entering Out-Of-Home Placements During Calendar Year 2009 By Case Manager County and Specific Removal Reason



NOTE: Data for children returned to mother's custody is currently collected in the CSTAR Women & Children's program.

Significance: The chart shows the number of children returned to their mother while the mother was enrolled in a CSTAR Women & Children's program. The number will vary each quarter due to several factors such as, number of women enrolled who have had children removed from custody and the number of children in the family.

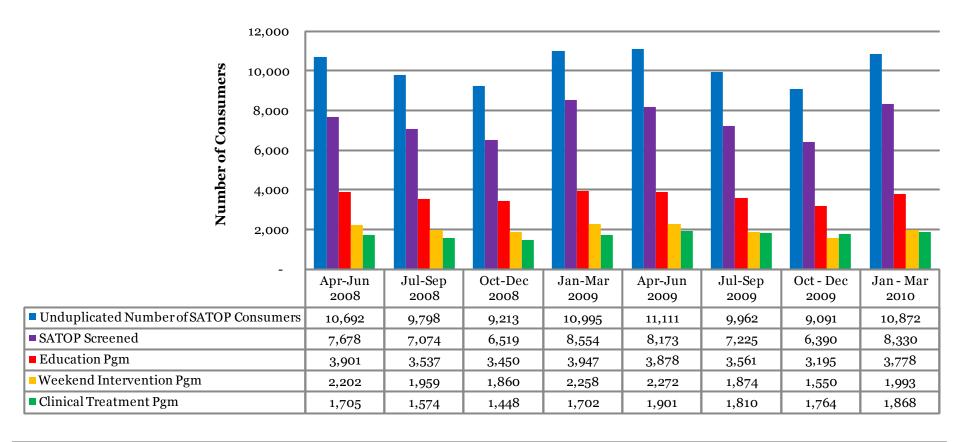
#### **Consumers Receiving Recovery Support**



NOTE: Recovery supports are a collection of non clinical services that support recovery from alcohol and drug addiction. ATR II funded recovery support services include care coordination, re-entry coordination, child care, drop-in center, brief periods of supportive housing, family engagement, pastoral counseling, recovery mentoring, spiritual life skills, transportation, and work preparation.

Significance: One of ADA's goals is to increase the number of consumers receiving recovery support services. The data suggests that ADA is accomplishing this goal.

#### ADA Substance Abuse Traffic Offenders Program (SATOP) Consumers Served

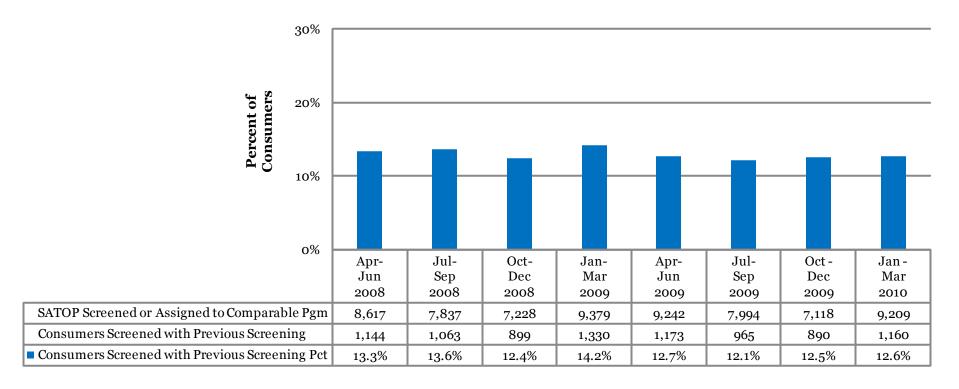


NOTE: The number screened will not equal the sum of the programs due to consumers having up to 6 months to complete the assigned program. Consumers may also decide to complete a comparable program that is more intensive than the one recommended by the screening.

 $NOTE: Clinical\ treatment\ program\ includes\ clinical\ intervention, youth\ clinical\ intervention\ and\ the\ Serious\ \&\ Repeat\ Offender\ program.$ 

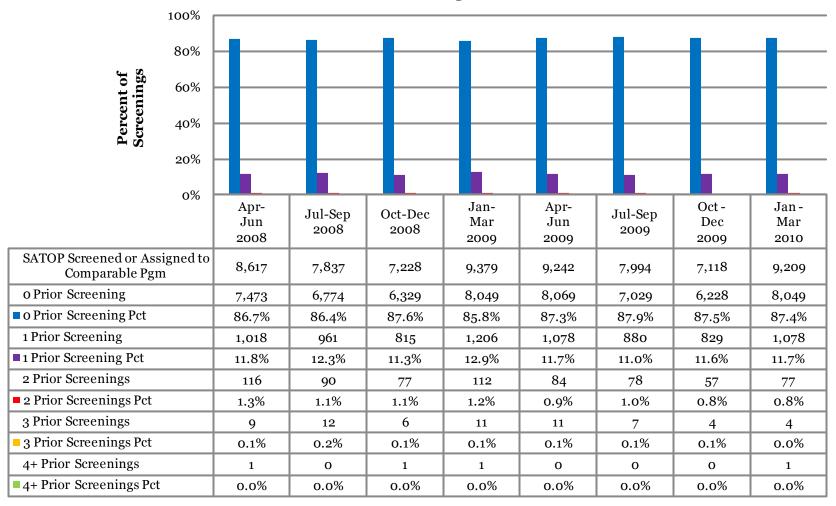
Significance: The data shows a trend of increased screenings in the Jan-Mar quarter which is due in part to the increased number of DWIs cited over the holidays. Education, Weekend Intervention and clinical treatment programs tend to have more consumers between January and June each year.

#### ADA Substance Abuse Traffic Offenders Program (SATOP) With A Previous Referral



Significance: Majority of consumers receiving a SATOP screening have not had a prior SATOP screening within the past five years.

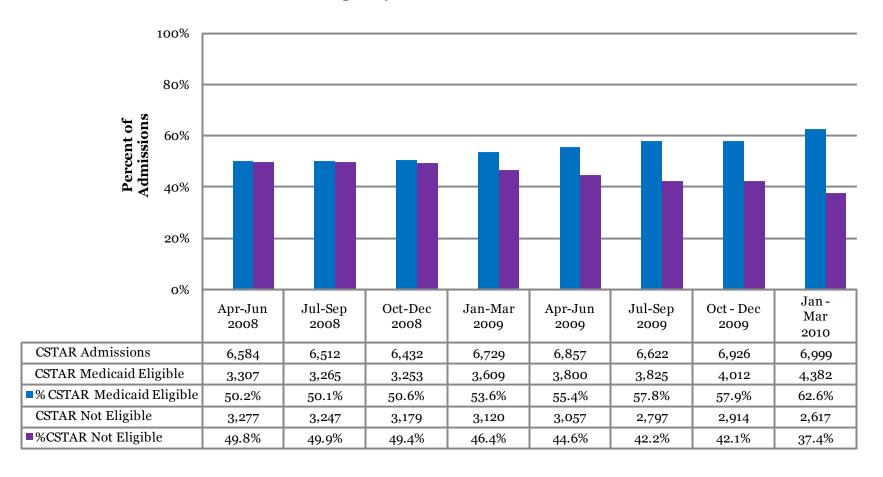
ADA Substance Abuse Traffic Offenders Program (SATOP) Consumers Screened - Range of Previous SATOP Screenings Within Past 5 Years



NOTE: A change in methodology was made. All data reflects number of previous screenings within the past 5 years of consumers' last SATOP screening within the reported quarter. This will eliminate the problem of the increased time span for re-offense of consumers with a screening in the most recent quarter.

Significance: The majority of the consumers with at least 1 prior SATOP screening have had only 1 prior screening.

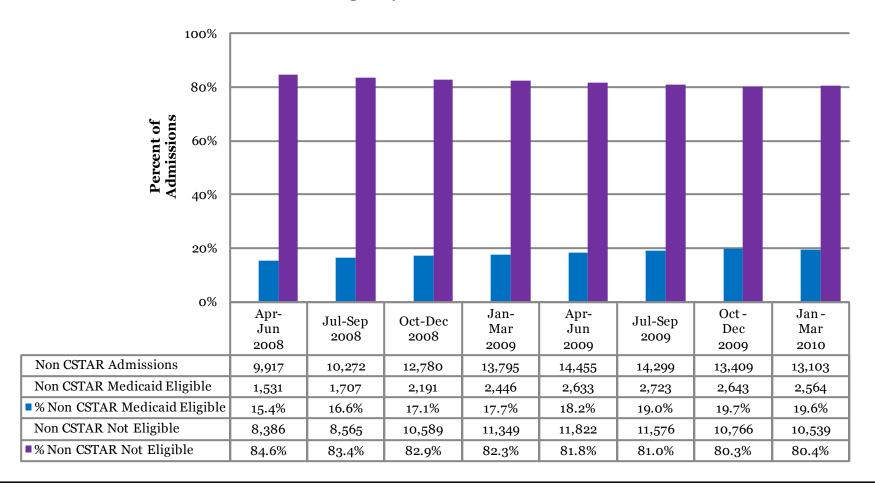
#### **Medicaid Eligiblity for ADA CSTAR Admissions**



NOTE: CSTAR programs include CSTAR Women & Children, CSTAR Women & Children Enhanced, CSTAR Women & Children Alt Care, CSTAR Adolescent, CSTAR General Adult and CSTAR General Adult Enhanced.

Significance: Since April 2008, the percentage of consumers in CSTAR programs who are Medicaid eligible has increased. This may be due to a number of factors such as changes in Medicaid eligibility, ADA's spending restriction of General Revenue causing a reduction in the number of non-eligible consumers who can be served, and ADA providers converting to CSTAR programs.

#### **Medicaid Eligiblity for ADA Non CSTAR Admissions**



NOTE: Non-CSTAR programs include Primary Recovery Plus, Enhanced Primary Recovery Plus, Corrections Primary Recovery Plus, DOC Free & Clean Plus, DOC Partnership for Community Restoration, Clinical Intervention Program (Adult and Youth), Serious & Repeat Offender Program and ADA General Treatment.

Significance: Since April 2008, the percentage of consumers in non-CSTAR programs who are Medicaid eligible has increased. This may be due to a number of factors such as changes in Medicaid eligibility, ADA's spending restriction of General Revenue causing a reduction in the number of non-eligible consumers who can be served, and ADA providers converting to CSTAR programs.

#### **Medicaid Eligiblity for ADA Opioid Admissions**



Significance: The percentage of Medicaid eligible admissions is increasing due to at least a couple of factors: increase in Medicaid eligible population and ADA's spending restriction of general revenue reduces the number of non-eligible consumers who can be served.

# **Discussion and Conclusion**

Department of Mental Health safety issues are a reflection of a complex interplay of factors, including but not limited to, staffing, the acuity of consumers served, the design of the service environment, and the design of effective programming to meet the needs of consumers served. The previous charts represent DMH consumer demographics as well as status reports on safety-related indicators. Reviews and discussion of the data have generated substantive discussions at the Mental Health Commission meetings as well as inquiries about the meaning of the data and its use for consumer safety. In many instances, discussions have led to changes in data definitions and presentation to capture more accurate information and to allow comparisons, where appropriate across divisions, with the general population, or with national data sets such as The Joint Commission or comparable provider organizations. Such comparisons provide challenges and goals for quality and process improvement that can promote safe practices for DMH consumers. Mortality data has been particularly challenging due to the statistical complexities of establishing meaningful death rates for small numbers of individuals in DMH facilities and providers. Consequently, future safety reports will present an annual rather than quarterly mortaility rate.

Although the data speaks for itself, notable highlights from the preceding charts include:

#### Division of Comprehensive Psychiatric Services (CPS)

- Declines in CPS inpatient youth injuries correlate with reduced use of restraint and seclusion.
- Direct care vacancy rates are down, probably due to economic conditions.
- Overtime continues to be necessary in CPS facilities.
- Bed closures have increased in acute facilities due to staffing and budget shortfalls.
- Long term facilities continue to operate above capacity.
- Decrease in staff injury over three quarters is encouraging, even if not yet possible to define as a trend.
- When compared to the general population of Missourians, CPS consumers die 20-25 years earlier.

#### Division of Developmental Disabilities (DD)

- Experience generally lower rates of staff injury than CPS.
- High nursing vacancy rates are beginning to trend downward, while other direct care vacancy rates are generally unchanged.
- High proportions of habilitation center clients require formal behavioral support programs.
- Overtime continues to be necessary in DD facilities.
- When compared to the general population of Missourians, DD consumers die about 15 years earlier.

Although not evident in review of the data alone, the Department of Mental Health has undertaken key activities in the last year in response to the data that have relevance to safety practices at Department facilities. These include but are not limited to:

- Initiatives for safe use of restraint and seclusion, with many CPS and DD facilities continuing their efforts to reduce its use or eliminate it entirely.
- Concerted efforts to address staff injury rates at Fulton State Hospital due to high rates of staff injury and workers compensation claims.
- Diligent efforts to reduce census at facilities operating above capacity.
- · Legislation to establish consequences for consumers who assault staff with bodily fluids and feces.

The routine review of performance data and trends provides a tool to continually evaluate the outcomes and success of these and future quality improvement efforts.



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